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Experimental Model School Unit. Application for Continuation Grant. P.L. 89-10 ESEA, Title III.
Charlotte-Mecklenburg Public Schools, Charlotte, N.C.
Spons Agency-Office of Education (DHEW), Washington, D.C.
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Identifiers-Charlotte-Mecklengurg Schools, Elementary and Secondary Education Act, EMSU, ESEA, ESEA Title III, *Experimental Model School Unit, North Carolina

This application for continuation of an ESEA, Title III, grant to the Charlotte-Mecklenburg, N.C., Schools' Experimental Model School Unit (a senior high school and its two junior high and six elementary feeder schools with a program of research, experimentation, innovation, and dissemination designed to act as a catalyst for curriculum, organizational, and technological improvement throughout the region) includes (1) a narrative report of the first year's operation, (2) projected activities for the remaining two years of the project period, (3) statistical data form reports, and (4) financial report including proposed budget summary and estimated expenditures. The narrative report contains program objectives, descriptions of operational activities, and evaluation of each of the initial eight programs: kindergarten, science nature center, humanities (inter-disciplinary approach), nongraded/team teaching, learning resources center (supplementary instruction), project evaluation, inservice education, and dissemination. The section on projected activities contains description of educational needs, objectives, activities, and evaluation procedures for the 16 new project phases including programs in individualized mathematics instruction, foreign language studies, vocational education, data processing instruction, guidance activity coordination, inquiry training, and creativity motivation. (JS)

ED0 27258

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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APPLICATION FOR
CONTINUATION GRANT
P.L. 89-10 ESEA, TITLE III

EXPERIMENTAL
MODEL
SCHOOL
UNIT

SUBMITTED BY
CHARLOTTE-MECKLENBURG SCHOOLS
CHARLOTTE, NORTH CAROLINA

SP002234

Application to Continue
the
EXPERIMENTAL MODEL SCHOOL UNIT

ESEA, Title III - Continuation Grant

April, 1968

PREFACE

The Experimental Model School Unit is defined as a senior high school and its two junior high and six elementary feeder schools. As planning at each of these schools progressed to a point of operational readiness, the school was to be phased into the Unit during the three years of the project. To date, four schools - two (2) elementary, a junior high and a senior high school have been participating in the program. The unit concept, with each school sponsoring some unique programs, was developed in order that no one school would be over burden with too many new programs.

Designed to serve as a catalyst for curriculum, organizational, and technological improvement throughout the region, evidence exists that significant behavioral changes have occured among all participating student and professional personnel. As the program moves into its remaining two years of the project period, it will, hopefully, become a truly exemplary model for others to emulate.

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OE 4381 (11-66)

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
OFFICE OF EDUCATION
WASHINGTON D.C. 20202

BUDGET BUREAU NO. 51-R600
APPROVAL EXPIRES 6/30/68

ESEA TITLE III STATISTICAL DATA
Elementary and Secondary Education Act of 1965 (P.L. 89-10)

THIS SPACE FOR U.S.O.E. USE ONLY →	PROJECT NUMBER	STATE CODE	COUNTY CODE	REGION CODE	STATE ALLOTMENT

SECTION A - PROJECT INFORMATION

1. REASON FOR SUBMISSION OF THIS FORM *(Check one)*

A ☐ INITIAL APPLICATION FOR TITLE III GRANT OR RESUBMISSION
B ☒ APPLICATION FOR CONTINUATION GRANT
C ☐ END OF BUDGET PERIOD REPORT

2. IN ALL CASES EXCEPT INITIAL APPLICATION, GIVE OE ASSIGNED PROJECT NUMBER
3720

3. MAJOR DESCRIPTION OF PROJECT: *(Check one only)*

* A ☒ INNOVATIVE *C ☒ ADAPTIVE
* B ☒ EXEMPLARY

4. TYPE(S) OF ACTIVITY *(Check one or more)*

A ☒ PLANNING OF PROGRAM
B ☐ PLANNING OF CONSTRUCTION
C ☒ CONDUCTING PILOT ACTIVITIES
D ☒ OPERATION OF PROGRAM
E ☒ CONSTRUCTING
F ☐ REMODELING

5. PROJECT TITLE *(5 Words or Less)*

Experimental Model School Unit

6. BRIEFLY SUMMARIZE THE PURPOSE OF THE PROPOSED PROJECT AND GIVE THE ITEM NUMBER OF THE AREA OF MAJOR EMPHASIS AS LISTED IN SEC. 303, P.L. 89-10. *(See instructions)*

The Experimental Model School Unit is an exemplary school unit designed for research, experimentation, innovation and dissemination. Its basic purpose is to serve as a catalytic agent for curriculum improvement throughout the region.

ITEM NUMBER 8

7. NAME OF APPLICANT *(Local Education Agency)*
Charlotte-Mecklenburg Schools

8. ADDRESS *(Number, Street, City, State, Zip Code)*
P. O. Box 149
Charlotte, N. C. 28201

9. NAME OF COUNTY
Mecklenburg

10. CONGRESSIONAL DISTRICT
8th

11. NAME OF PROJECT DIRECTOR
Marjorie B. Brodt

12. ADDRESS *(Number, Street, City, State, Zip Code)*
P. O. Box 149
Charlotte, N. C. 28201

PHONE NUMBER 536-2361
AREA CODE 704

13. NAME OF PERSON AUTHORIZED TO RECEIVE GRANT *(Please type)*
Dr. William C. Self

14. ADDRESS *(Number, Street, City, State, Zip Code)*
P. O. Box 149
Charlotte, N. C. 28201

PHONE NUMBER 536-2361
AREA CODE 704

15. POSITION OR TITLE
Superintendent

SIGNATURE OF PERSON AUTHORIZED TO RECEIVE GRANT
William C. Self

DATE SUBMITTED
4/4/68

* 3. All three descriptions (a) (b) (c) are a vital part of this proposal. B was arbitrarily considered as major but should not be considered in isolation.

SECTION A – Continued

16. LIST THE NUMBER OF EACH CONGRESSIONAL DISTRICT SERVED 8th	17A. TOTAL NUMBER OF COUNTIES SERVED 1 B. TOTAL NUMBER OF LEA'S SERVED 1 C. TOTAL ESTIMATED POPULATION IN GEOGRAPHIC AREA SERVED 341,000	18. LATEST AVERAGE PER PUPIL ADA EXPENDITURE OF LOCAL EDUCATION AGENCIES SERVED $ 450.00

SECTION B – TITLE III BUDGET SUMMARY FOR PROJECT (Include amount from item 2c below)

1.		PREVIOUS OE GRANT NUMBER	BEGINNING DATE *(Month, Year)*	ENDING DATE *(Month, Year)*	FUNDS REQUESTED
A.	Initial Application or Resubmission				$
B.	Application for First Continuation Grant		7/1/68	6/30/69	$1,066,591.00
C.	Application for Second Continuation Grant		7/1/69	6/30/70	$ 800,000.00
D.	Total Title III Funds				$1,865,591.00
E.	End of Budget Period Report				-

2. *Complete the following items only if this project includes construction, acquisition, remodeling, or leasing of facilities for which Title III funds are requested., Leave blank if not appropriate..*

A *Type of function (Check applicable boxes)*

1 ☐ REMODELING OF FACILITIES
2 ☐ LEASING OF FACILITIES
3 ☒ ACQUISITION OF FACILITIES
4 ☒ CONSTRUCTION OF FACILITIES
5 ☐ ACQUISITION OF BUILT-IN EQUIPMENT

B	1. TOTAL SQUARE FEET IN THE PROPOSED FACILITY Site - 25 acres Bldg. - 864 sq. ft.	2. TOTAL SQUARE FEET IN THE FACILITY TO BE USED FOR TITLE III PROGRAMS Present site - 3 acres Proposed site - 28 acres(864 sq.ft.)	C AMOUNT OF TITLE III FUNDS REQUESTED FOR FACILITY (Entered in Section B-1.B.) $ Site-$50,000.Bldg.-$11,096

SECTION C – SCHOOL ENROLLMENT, PROJECT PARTICIPATION DATA AND STAFF MEMBERS ENGAGED

1.			PRE-KINDERGARTEN	KINDERGARTEN	GRADES 1 - 6	GRADES 7 - 12	ADULT	OTHER	TOTALS	STAFF MEMBERS ENGAGED IN IN-SERVICE TRAINING FOR PROJECT
A	School Enrollment in Geographic Area Served	(1)Public	NA	Title III 18 Title I 560	43,804	35,892			80,274	
		(2)Non-public			1,321	1,082			2,403	
*B	Persons Served by Project	(1)Public		18	794	1,864			2,676	160 Prof. 34 Non-Prof
		(2)Non-public								
		(3)Not Enrolled								
C	Additional Persons Needing Service	(1) Public		7,000	43,010	34,028			84,038	3,660 Prof.
		(2)Non-public			1,321	1,082			2,403	90 (appro
		(3)Not Enrolled								

2. TOTAL NUMBER OF PARTICIPANTS BY RACE *(Applicable to figures given in item IB above)*	WHITE	NEGRO	AMERICAN INDIAN	OTHER NON-WHITE	TOTAL
	2,608	174	-	-	2,782

*Estimated Increase Enrollment - Item B	Kindergarten	Grades 1-6	Grades 7-12	Total
1968-1969	18	1100	2400	3500
1969-1970	36	2037	3490	5563

SECTION C - continued

3. RURAL/URBAN DISTRIBUTION OF PARTICIPANTS SERVED OR TO BE SERVED BY PROJECT

PARTICIPANTS	RURAL		METROPOLITAN AREA		
	FARM	NON-FARM	CENTRAL-CITY	NON-CENTRAL CITY	OTHER URBAN
PERCENT OF TOTAL NUMBER SERVED (approximate)	15%	35%			50%

SECTION D - PERSONNEL FOR ADMINISTRATION AND IMPLEMENTATION OF PROJECT

1. PERSONNEL PAID BY TITLE III FUNDS

TYPE OF PAID PERSONNEL	REGULAR STAFF ASSIGNED TO PROJECT			NEW STAFF HIRED FOR PROJECT		
	FULL-TIME 1	PART-TIME 2	FULL-TIME EQUIVALENT 3	FULL-TIME 4	PART-TIME 5	FULL-TIME EQUIVALENT 6
A. ADMINISTRATION/ SUPERVISION	3			4		
B. TEACHER:						
(1) PRE-KINDERGARTEN						
(2) KINDERGARTEN				1		
(3) GRADES 1-6 Team Leaders	4 3			2 3*		
(4) GRADES 7-12 Team Leaders	12** 5*			2 1*		
(5) OTHER						
C. PUPIL PERSONNEL SERVICES						
D. OTHER PROFESSIONAL	1			2		
E. ALL NON-PROFSSIONAL	5			14		
F. FOR ALL CONSULTANTS PAID BY TITLE III FUNDS →	(1.) TOTAL NUMBER RETAINED 17			(2.) TOTAL CALENDAR DAYS RETAINED 94		

2. PERSONNEL NOT PAID BY TITLE III FUNDS

TYPE OF UNPAID PERSONNEL	REGULAR STAFF ASSIGNED TO PROJECT			NEW STAFF HIRED FOR PROJECT		
	FULL-TIME 1	PART-TIME 2	FULL-TIME EQUIVALENT 3	FULL-TIME 4	PART-TIME 5	FULL-TIME EQUIVALENT 6
A. ADMINISTRATION/ SUPERVISION	6	41(356 hrs per mo)	2.05			
B. TEACHER:						
(1) PRE-KINDERGARTEN						
(2) KINDERGARTEN						
(3) GRADES 1 TO 6	29	5 (1/2)	2.5			
(4) GRADES 7-12	99	8 (1/2)	4.0			
(5) OTHER						
C. PUPIL PERSONNEL SERVICES						
D. OTHER PROFESSIONAL						
E. ALL NON-PROFESSIONAL	19					
F. FOR ALL CONSULTANTS NOT PAID BY TITLE III FUNDS →	(1.) TOTAL NUMBER RETAINED 2			(2.) TOTAL CALENDAR DAYS RETAINED 3		

*Team Leaders - paid supplement equal to 1/10 of regular salary

**One teacher transferred to local payroll 1/12/68

SECTION E - NUMBER OF PERSONS SERVED OR TO BE SERVED AND ESTIMATED COST DISTRIBUTION

	MAJOR PROGRAM OR SERVICES	TOTAL NUMBER SERVED OR TO BE SERVED						NONPUBLIC SCHOOL PUPILS INCLUDED (7)	ESTIMATE COST (8)
		PRE-K (1)	K (2)	1-6 (3)	7-12 (4)	ADULT (5)	OTHER (6)		
1.	EVALUATIVE PROGRAMS								
	A Deficiency Survey (Area Needs)								
	B Curriculum Requirements Study (Including Planning for Future Need)								
	C Resource Availability and Utilization Studies								
2.	INSTRUCTION AND/OR ENRICHMENT								
	A Arts (Music, Theater, Graphics, Etc.)			850					$ 8,860.
	B Foreign Languages			135					4,267.
	C Language Arts (English Improvement)			850	2400				26,619.
	D Remedial Reading			850					8,860.
	E Mathematics			1100	2400				85,019.
	F Science			850	2400				115,944.
	G Social Studies/Humanities			850	2400				111,115.
	H Physical Fitness/Recreation								
	I Vocational/Industrial Arts				414				76,811.
	J ~~Special-Physically Handicapped~~ In-Service Training		18	1100	2400				148,137.
	K Special-Mentally Retarded	(2 1/2% of these enrollment figures)							
	L Special-Disturbed (Incl. Delinquent)	(5% of these enrollment figures)							
	M ~~Special-Dropout~~ Kindergarten Program		18						18,874.
	N Special-Minority Groups								
3.	INSTRUCTION ADDENDA								
	A Educational TV/Radio			850	2400				25,635.
	B Audio-Visual Aids			850	2400				1,166.
	C Demonstration/Learning Centers			850	2400				221,181.
	D Library Facilities								
	E Material and/or Service Centers								
	F Data Processing								
4.	PERSONAL SERVICES								
	A Medical/Dental								
	B Social/Psychological-Guidance		18	850	2400				13,948.
5.	OTHER Administration Dissemination, Evaluation								200,155.

SEE SECTION B - ITEM 1B - $ 1,066,591.

7 1/2% SERVES MENTALLY RETARDED & EMOTIONALLY DISTURBED $ 79,994.

APPLICATION FOR CONTINUATION GRANT

ASSURANCES

THE APPLICANT HEREBY GIVES ASSURANCE TO THE UNITED STATES COMMISSIONER OF EDUCATION THAT:

1. The applicant has the necessary legal authority to apply for and receive the proposed grant;

2. The activities and services for which assistance is sought under this Title will be administered by or under the supervision of the applicant;

3. In planning the program proposed in the application, there has been, and in establishing and carrying out that program, there will be participation of the appropriate cultural and educational resources of the area to be served;

4. Any funds received under this grant shall not be used to supplant funds normally budgeted for the planning of services of the same type;

5. The applicant will comply with Title VI of the Civil Rights Act of 1964 (P. L. 88-352) and all requirements imposed by or pursuant to the Regulations of the Department of Health, Education, and Welfare (45 CFR Part 80) issued pursuant to the title, to the end that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant received Federal financial assistance from the Department;

6. The project will be operated in compliance with Public Law 89-10 and with Regulations and other policies and administrative issuances by the Commissioner, including submission of such reports as may be required;

7. Copies of this application have been submitted for review and recommendation to the State educational agency;

8. The filing of this application has been authorized by the governing body of the applicant, and the undersigned representative has been duly authorized to file this application for and in behalf of said applicant, and otherwise to act as the authorized representative of the applicant in connection with this application.

I, W. C. Self, do hereby certify that all of the facts, figures, and representations made in this application, including all exhibits and attachments hereto and hereby made a part of this application, are true and correct to the best of my knowledge and belief.

DATED 4-4-68

CHARLOTTE-MECKLENBURG SCHOOLS

SUPERINTENDENT

By W. C. Self
W. C. Self
Superintendent

NOTARY PUBLIC: Subscribed to before me this

April 4, 1968
(Date)

Charlotte, North Carolina
(City) (State)

Signature of Notary Public Rita J. Hatton

Date Notary's Commission Expires August 5, [illegible]

PART II - NARRATIVE REPORT

Charlotte-Mecklenburg School System
P. O. Box 149
Charlotte, North Carolina 28201
Grant No: OEG-3-7-703720-4882
Project No: 3720

North Carolina Budget Period: July 1, 1968 to June 30, 1969

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1. (a) For operational activities, discuss the effect of the project on the clientele by briefly stating the major objectives of the project and the techniques used in evaluating the extent to which these objectives were achieved. PACE project applicants are required to provide project evaluations. Please attach one copy of the results of this evaluation with supporting materials. Estimate the cost of the evaluation.

The Experimental Model School Unit (EMSU) has been operational for the past eight months. All Experimental Model School Unit planning and activities have been directed towards the achievement of major project objectives as well as objectives of each of the individual programs that comprise the project.

a. Project Objectives

The major objective of the total Experimental Model School Unit is to act as a catalyst for curriculum, organizational and technological improvement throughout the local school system. This will be achieved through active involvement in research, experimentation, innovation and dissemination.

b. Program Objectives

Eight programs were initiated at the beginning of the present school year as an integral part of the Experimental Model School Unit. Their objectives and the approach we selected to evaluate our degree of objective achievement are presented herein:

Kindergarten Program

The kindergarten program is designed to help children develop understanding, skills, and appreciations. More specific objectives are to assist children to live more effectively with people; develop an increasing awareness of their physical environment; develop ability to listen with comprehension, speak effectively, and enjoy stories and poetry; prepare for the use of written symbols and numbers; learn the joy of exploring and creating through the medium of art; gain independence and ability to handle emotions; and develop physical abilities.

One teacher is employed in the kindergarten program. She instructs a group of eighteen pupils for two and one-half hours each morning. For the remainder of the school day, her efforts are directed toward developing an exemplary curriculum guide, preparing materials, and designing activities for use in this innovative environment.

The program offered these children is consistent with the physical, social, emotional, and intellectual needs of the typical five-year old residing in the Clear Creek School District. In conducting the instructional activities, the teacher is guided by practices which have been proven appropriate for this age level; but, at the same time, provisions are included to experiment with a number of new innovative approaches.

During the current year, the kindergarten program will be evaluated by obtaining data from a descriptive evaluation report (See Appendix A) submitted by the teacher, teams of professionals, and lay people and by obtaining measures of emotional, social, intellectual, and physical progress on the part of the pupils.

Nature Center Program

This center has enabled the high school to offer additional science electives to meet the individual needs of students. These electives include biophotography, ecology, hydrobiology, landscaping, plant collection and plant physiology. The nature center is used for intensive training in the biological sciences as well as for visitations by class groups from other schools and interested members of the community. One major objective of this program during the next budget year will be coordinating the nature center programs with other science courses offered.

This program is being evaluated on the basis of data collected regarding pupil performance, pupil and teacher attitude, and the appraisals of evaluation teams, both professional and lay.

Humanities Program

The humanities program is designed to promote the skill of critical thinking and an awareness of the variety of human accomplishments. The main emphasis of the program will be directed at correlating and fusing the various disciplines. Teachers from various subject areas have been in the process of meeting together for the purpose of sharing ideas and materials. The teachers participating believe that the best way to develop skills in critical thinking is through the problem-solving approach.

The objectives of the humanities program are:

1) Improve students' command of grammar and communication skills by giving them the opportunity to write creative and expository themes.

2) Improve students' understanding and appreciation of music by introducing the students to a variety of the world's great music.
3) Improve students' ability to analyze a film; i.e., defining the themes of films, pointing out various techniques used to convey messages, identifying symbolism, and discriminating between appropriate and inappropriate techniques.
4) Improve students' ability to analyze novels, stories, and plays in order that the student might identify the plot, relate problems, recognize areas of conflict, as well as strengths and weaknesses of characters.
5) Improve students' ability to appreciate the expressive powers of the human body by observing dancing.
6) Improve the students' sensory perception through the analysis of sounds, colors, tastes and smells which are observed in their surroundings.
7) Improve students' ability to understand and appreciate art.
8) Improve students' ability to make objective judgment, and to use deductive and inductive reasoning.

The humanities program will be evaluated by obtaining data regarding teacher and pupil attitudes, students' performance, and the appraisals of evaluation teams both professional and lay. Both objective and subjective tests will be employed for obtaining evaluative information.

Non-Graded/Team Teaching Program

The non-graded/team teaching programs which have been introduced in the Experimental Model School Unit may briefly be defined as follows:

1) The non-graded unit is a flexible organizational plan characterized by the placement of pupils according to their ability in an uninterrupted progress, thus eliminating the graded structure.
2) Team teaching, a cooperative effort on the part of two or more teachers, is designed to capitalize and make use of each teacher's talents to the fullest for the students' benefit.

The major objective of this organizational innovative program is to promote academic improvement on the part of pupils and improvement in the competency of the participating teachers. Two levels of evaluation for the non-graded/team teaching approach will be provided. First, the non-graded/team teaching activities will be evaluated by a visiting team of experts. In this approach the mechanics of the program including the interrelationships between teachers will be appraised. The second type of evaluation will be directed more at determining what happens to the students and teachers who are involved in this program. Attitude scales and achievement tests will be used primarily to answer this question.

Learning Resource Center Program

The learning resource center has been organized as a teaching technique to take the place of or to supplement regular classroom instruction by (1) serving as an alternative presentation for those students having difficulty in school; (2) remedying weaknesses of individual students; (3) supplementing the course work for exploration of topics in depth and (4) providing space and materials for independent study.

The center has become effective through the unification of the auxiliary instructional services provided to classroom teachers. For example, the components of the learning resource center include the book and materials area, the audio-visual area, the production and technological area, and the area for independent study.

The primary objectives of the learning resource center are to assist the student (1) in developing self-discipline in regard to use of time, conduct, and talent; (2) in applying both deductive and inductive reasoning to problems; (3) in developing his ability to see the relationship between his interest, abilities, and various vocations; and (4) in developing a sense of self-confidence as he achieves at a level consistent with his potential.

An evaluation of the learning resource center has been conducted by appraising the general operation and services of the center and determining the effect that the center's activities have on pupils and teachers. Evaluations were made by visiting teams and by collecting subjective and objective test data from pupils and teachers.

Evaluation Program

The major objective of the Evaluation Program is to provide a uniform approach to the planning, coordination, implementation and analysis of evaluation procedures utilized for each Experimental Model School Unit program.

The effectiveness of this program will be determined by the adequacy of the evaluation of each individual program as reported in "End of Budget Period Report".

In-Service Education Program

The schools in the Experimental Model School Unit have had and will have many ongoing in-service training programs based on new knowledge and ideas derived from educational research. This phase of the experimental program has been emphasized because the personnel in this school system has a firm conviction that there is a great need to eliminate one of the greatest obstacles to the expansion of quality education -- the lack of trained personnel.

The upgrading of experienced personnel and training of new personnel is especially critical in schools where innovative and exemplary programs are being conducted. For this reason, emphasis in the Experimental Model School Unit has been directed at activities to encourage teachers to observe each other, interns to work under teachers practicing new techniques, and teachers to participate in self-analysis.

The broad objectives of the in-service training program are:

1) To improve professional competence, skills, and classroom performance.
2) To improve perceptions of self, others, school, and innovative practices.

3) To create a willingness to study one's own behavior.

The objectives were evaluated primarily by asking the participants to appraise their reactions to the in-service education program and by a descriptive evaluation submitted by evaluating teams.

Dissemination Program

The broad objectives of the dissemination program are:

1) To improve the Charlotte-Mecklenburg Schools' educational program through demonstration and other catalytic efforts, with the introduction of new and effective instructional techniques and materials.
2) To serve as a catalyst to the school systems of the State, region and, perhaps, the nation in helping them to incorporate the best in educational practice in their school programs.
3) To inform and educate the public in regard to the latest and most effective educational practices and in regard to the function of research in the improvement of practice.

The effectiveness of this program is evidenced by the magnitude of data inquiries and requests for participation and visitations local, regional and national reported in our response to Part II questions four and five.

c. Overall Project Evaluation

The nature and content of evaluation reported herein were influenced greatly by the fact that we were not able to secure a sufficiently qualified person to serve as a full-time Evaluation Director. Consequently, the Project Director had to assume evaluation responsibilities in addition to a full administrative schedule. Fortunately, the Project Director, a trained research specialist was able to secure the services of a research specialist on a part-time basis to permit the degree of effectiveness accomplished during evaluation. We are duly concerned with the requirement that the continuation proposal which includes the evaluation for the Experimental Model School Project, be completed by May 1 of the first project year. From a practical point of view, this deadline requirement created a situation which makes it virtually impossible to obtain valid measures of progress on the part of participants. As in most projects of this nature, the first two or three months of the project were devoted to initial problems related to personnel selection and orientation, purchasing, organization, and pre-project data collecting. Therefore, at the time of the writing of the first draft of this report, the project activities were at full operational efficiency for fewer than five months -- an inadequate time to measure scientifically the impact of the project activities. Furthermore, in order to allow for maximum influence of the project activities for the current school year, post-testing was originally planned for the month of May which is after the deadline for submitting the evaluation report.

From practical necessity, then, our response to question 1.(a) is limited primarily to presenting pre-test data and subjective opinions of various phases of the project. In early Spring and during the early part of the Summer pre and post-test data will be analyzed to provide a more reliable and comprehensive appraisal. Also, system-wide data for comparative purposes will be available for analysis. Total evaluation results will be presented as part of our Project's "End of Budget Period Report".

Despite these handicaps, a general concensus exists among project staff members and participating professional personnel that planning, organization, and procedures to date provide the groundwork for making evaluation one of the strongest aspects of the Experimental Model School Unit Project. More specifically, the project staff is very encouraged concerning the amount and quality of collected relevant data, the receptiveness of the professional staff in regard to evaluation, and the long range experimental design which has been developed. Also, the project staff has reason to be very optimistic that a competent research specialist will be employed in the very near future.

The experimental design of the project includes the utilization of data which is collected as an integral part of the unit's regular testing program as well as information which is pertinent to specific project activities. Baseline evaluative data has already been collected and keypunched on "80 column" cards for subsequent processing. Table I, which follows, summarizes and identifies tests administered by the schools.

As indicated on the following Table I, four schools are currently participating in the Experimental Model School Unit. The Clear

TABLE I

Summary of Test Data Collected To Date in Project Schools

School	Experimental Programs In School	Tests Administered To Date	Grade Level Tested
Clear Creek Elementary	Kindergarten	Goodenough-Draw A Man Social Adjustment Inventory Welsh Figure Preference Lorge Thorndike Intelligence Semantic Differential*	Kindergarten
Devonshire Elementary	Non-Graded/Team-Teaching Learning Resource Center	Metropolitan Readiness	1
		Lorge Thorndike Intelligence	1, 2, 3, 4, 5, 6
		Stanford Achievement	2, 3, 4, 5, 6
Albemarle Junior High	Humanities Non-Graded/Team-Teaching - Mathematics Learning Resource Center	Stanford Achievement	7, 8, 9
		Lorge Thorndike Intelligence	7
		Differential Amplitude	8 and 9
		Semantic Differential*	7, 8, 9
		Teacher and Pupil Evaluation of Independent Study	LRC Students
Independence High	Nature Center Team-Teaching Special Abilities & Talents Communication Lab Biology Humanities Learning Resource Center	Stanford Achievement	10, 11, 12
		Differential Aptitude	10, 11, 12
		Semantic Differential	10, 11, 12
		Welsh Figure Preference	Humanities
		Watson-Glaser Critical Thinking Appraisal	Humanities
		Teacher and Pupil Evaluation of Independent Study	LRC Students

*Semantic Differential also administered to teachers

Creek Elementary School maintains a kindergarten program with a teacher, an aide, and 18 children. Plans are being made to phase the other six grade levels at Clear Creek into the proposed Individual Prescribed Instruction project which will initiate during the next budget period.

At Devonshire Elementary School (grades 1-6), a total of 794 pupils are enrolled under 16 primary teachers and 12 intermediate teachers. This part of the experimental unit engenders non-graded/team teaching with multi-age grouping, and a learning resource center. Six additional personnel assigned to the learning resource center encompass two teachers, a librarian, an audio-visual specialist, an audio-visual technician and a secretary. Special teachers make periodic visits to the school to teach in the areas of art, music, physical education, corrective reading and speech therapy.

A staff of 51 professional personnel at Albemarle Road Junior High directs three experimental programs -- a learning resource center, team teaching and humanities. The total enrollment of 899 students is involved in one or more of the programs. An additional staff of 10 non-professionals includes six (6) teacher aides, three (3) secretaries and an audio-visual technician who function as major components of teaching teams.

With an enrollment of 965 students and 69 professional personnel, Independence High School is operating five experimental programs - - a nature center, a learning resource center, team teaching, a non-graded communications laboratory, and a humanities class in grade 12. Three teacher aides and one secretary perform clerical and technical duties which render creativity and flexibility to planning. For overall visibility the above data has been summarized and is presented as Table II.

The above descriptive data are only a portion of antecedents which were to be collected regarding the project. Other antecedent data will be reported in the "End of Budget Report".

The summary of test data and supporting material presented in the following pages has been categorized by participating schools.

Clear Creek Elementary School

The kindergarten program was conducted at the Clear Creek Elementary School, a participant in the Experimental Model School Unit Project. This program consisted of one class of eighteen children, a teacher, and a teacher aide. Most of the children attending the class come from homes which would be classified economically as having parents with low or low-middle incomes.

In October and again in late February each kindergarten child was administered the Goodenough Draw-A-Man Test. At that time, the mean IQ for the group was 84.12, while in February the average IQ increased to 88.44. A statistical analysis revealed that the gain of 4.32 was not large enough to be declared significant - (See Table III). The evaluators felt that the time span between the first test and the second test was not long enough to determine significant results.

TABLE II

Student Membership, Instructional Personnel, and Experimental Programs at the Four Schools Participating in the Model School Program

School	Experimental Programs	Grade Level	Students Enrolled	Professional Staff						Non-Professional Staff							
				Teachers		LRC	Guidance	Admin.	Sub-Total	Sec.	Aides	Cafe.	Cust.	LRC	Nurse	Sub-Total	Total
				Perm.	Visit.												
Clear Creek	Kindergarten	K	18	1					1		1					1	2
Devonshire Elementary	Non-Graded/ Team-Teaching	1-6	794	28	5	5	0	2	40	2	6	1	1	1	1	12	52
Albemarle Jr. High	Team Teaching L. R. C. Humanities	7-9	899	38	4	5	1	3	51	3	3	1	1	1	1	10	61
Independence Sr. High	Nature Center Team-Teaching Comm. Lab. L. R. C. Humanities	10-12 (12th only)	965	55	4	4	2	4	69	5	3	1	1	1	1	12	81

Devonshire Elementary

I. Learning Resource Center	
a. Librarian	1
b. Audio-Visual Spec.	1
c. Audio-Visual Tech.	1
d. Independent Study Teachers	2
e. Secretary	1
II. Visiting Teachers	
a. Art	1
b. Music	1
c. Corrective Reading	1
d. Physical Education	1

Albemarle Road Junior High

I. Learning Resource Center	
a. Audio-Visual Spec.	1
b. Audio-Visual Tech.	1
c. Librarian	1
d. Independent Study teachers	2
e. Humanities Spec.	1
II. Visiting Teachers	
a. Art	1
b. Music	1
c. Orchestra	1
d. Industrial Arts	1

Independence Senior High

I. Learning Resource Center	
a. Librarian	1
b. Audio-Visual Spec.	1
c. Audio-Visual Tech.	1
d. Independent Study Teachers	2
e. Humanities Spec.	1
II. Visiting Teachers	
a. Music	2
b. Business	1
c. Bible	1

TABLE III

Summary of Results for Intelligence Tests
Administered to Kindergarten Children
Clear Creek Elementary School
N = 18

Name of Test	Date of Testing	Mean IQ	S. D.
Goodenough Draw-A-Man*	October, 1967	84.12	14.02
Goodenough Draw-A-Man*	February, 1968	88.44	10.26
Lorge-Thorndike Intelligence Test	November, 1967	95.82	14.70

*The critical ratio of 1.06 obtained when comparing the means between the two administrations of the Draw-A-Man test was below that required for declaring a significant improvement, $p < 1.95$. ?

In November of the school year, the same students were administered The Lorge-Thorndike Intelligence Test, a summary of which revealed an average IQ of 95.82. On all three tests, over 75% of the children had intelligence quotients below 100.

At the beginning of the school year (September, 1967) and in March, 1968, the teacher of the kindergarten rated each of her students on social adjustment, work adjustment, academic adjustment, and physical adjustment. Data on these four characteristics were averaged and their mean scores were converted to descriptive ratings (superior, above average, average, below average, or inferior).

In Table IV it is observed that the typical child in the class was rated only average on work adjustment and physical adjustment and below average on social and academic adjustments. The teacher, however, saw some progress among the students during a six-month period as revealed by increases in all assigned scores and four average adjustment scores. In fact, the observed progress on social adjustment and academic adjustment was great enough to be significant at the .01 and .05 confidence levels respectively.

The kindergarten children were also administered the Welsh Figure Preference Test. The results for this group are reported in a later section, Summary Data From The Welsh Figure Preference Test.

Devonshire Elementary School

The baseline data collected at Devonshire Elementary School included results from the Metropolitan Readiness Test, the Lorge-Thorndike Intelligence Test, and the Stanford Achievement Battery.

TABLE IV

Significance of Difference of Means Between Adjustment Scores
Obtained on Kindergarten Students in September, 1967 and March, 1968
N = 18

Adjustment Scores	March, 1968 Scores		September, 1967 Scores		Diff. in Means	t ratio
	Mean	S. D.	Mean	S. D.		
Social Adjustment (Descriptive Score)	12.44 (Average)	2.67	9.00 (Below Average)	3.48	3.44	3.34**
Work Adjustment (Descriptive Score)	11.61 (Average)	2.87	10.22 (Average)	3.31	1.39	1.35
Academic Adjustment (Descriptive Score)	9.17 (Average)	1.69	7.50 (Below Average)	1.83	1.67	2.65*
Physical Adjustment (Descriptive Score)	9.28 (Average)	1.41	8.17 (Average)	1.92	1.11	1.96

*Significant at .05 level

**Significant at .01 level

At the time of the writing of this report, post tests have not been administered to either the students in this experimental school or the students who comprise the control group; thus the data presented here represents the status of the Devonshire students at the beginning of the project year.

Only the first grade students at this school were administered the Metropolitan Readiness Test, an instrument designed to measure readiness for academic work at the lower primary level. Shortly after school began in September of this school year, 137 first grade students were administered this predictive instrument. In comparison with other first grade students throughout the Nation, the readiness of the typical student at Devonshire was slightly above average. To be more specific, the average student at the experimental school surpassed 55 percent of the students included in the norm population.

Students at all six grade levels were administered the Lorge-Thorndike Intelligence Test. At the first three grade levels, three interpretative scores are derived: an intelligence quotient (IQ), a grade equivalent (G.E.) for the I.Q., and a percentile rank for the IQ. In Table V, a summary of these scores is presented for grades one, two, and three. The results for the first grade are quite similar to those observed with the Metropolitan Readiness Test. An IQ of 101 shows that the average first grade student at Devonshire achieved exactly at his grade level (1.1) and is average (47%ile rank) in comparison with students in the United States.

TABLE V

Results of the Lorge-Thorndike Intelligence Test For the Primary Grades at Devonshire School

Grade Level	Number	I. Q.	SD	G. E.	%ile rank
One	139	101.11	13.45	1.1*	47
Two	142	103.37	11.77	2.3*	53
Three	140	106.46	10.48	3.9*	62

*Test administered during first month of school, therefore National Average for grade one is 1.1; for grade two, 2.1; and grade three, 3.1.

The 142 students at the second grade scored a little higher than the younger class. The typical student at this grade level scored slightly higher than the average in the nation on his IQ (103), grade equivalent (2.3), and percentile rank (53%).

Pupils in the third grade, however, generally scored higher than the students in the two lower grades. The average IQ (106) for the 140 third grade students surpassed 62% of the students comprising the norm group in the country. An intelligence quotient of this observed magnitude indicated that the typical third grader in his first month at Devonshire (3.1) should reason as well as the typical third grader in the country who has completed his last month (3.9) at this grade level.

Unlike the test for the primary grades, the Lorge-Thorndike for the intermediate grades (4th, 5th, and 6th) was designed to provide verbal, non-verbal, and total intelligence quotients (Table VI). The typical student at Devonshire has a verbal and non-verbal IQ which deviates only slightly from 100. In fact, the range of the intelligence quotients in the Table is from a low of 100 to a high of 103, a mere range of three points. Similarly, when their scores are converted to percentile ranks, the scores only vary between 44 and 53 percentile ranks. The similarity between the verbal and non-verbal IQ scores at each grade level support the conclusion that students at these three grade levels demonstrate no significant difference in their ability to reason with verbal concepts on the one hand and non-verbal concepts on the other.

TABLE VI

Results for the Lorge-Thorndike Intelligence Test
For Grades Four, Five, and Six at
Devonshire School

Grade Level	Number	Verbal		Non-Verbal		Total I. Q.
		I. Q.	%ile rank	I. Q.	%ile rank	
Four	110	100	44	103	52	102
Five	132	101	45	103	53	102
Six	107	101	44	100	46	100

In order to obtain baseline data on the academic performance of the students at Devonshire School, the Stanford Achievement Battery was administered to students in grades two through six. For each subject area tested, the mean grade equivalent, the standard deviation of the grade equivalent, and the percentile rank for the grade equivalent are presented. The conversion of the raw scores obtained on the students' tests to grade equivalence and percentile ranks is for the convenience of reporting. For convenience of discussion, the observed averages (mean scores) for the Devonshire students were compared with the grade level means for the national sample (national norms). For example, the Devonshire second grade students took their tests the first month of the second school year (2.1) which was determined by the grade equivalents for the national sample: the fourth grade 4.1, the fifth grade 5.1, and the sixth grade 6.1.

As indicated in Table VI the average second grade student scored at grade level (2.1) (50%ile) or better on paragraph meaning, vocabulary word study skills, and arithmetic; and below grade level on word meaning and spelling. The percentile ranks reported in the table for each of these subject areas reflect the relative position of the typical second grader at Devonshire in respect to second grade students from the national norm group. To illustrate, the lowest mean grade level score (1.96) on spelling indicates that the typical third grader in the local school surpassed only 36 percent of the students in the norm group, whereas on vocabulary the typical Devonshire student scored higher than 62 percent of the second graders in the nation.

TABLE VII

Summary Information for Stanford Achievement for Devonshire Elementary School

(Test Administered the First Month at Each Grade Level)

Grade Level	Number	Word Meaning			Paragraph Meaning			Vocabulary			Spelling			Word Study Skills			Arithmetic			Arithmetic Comprehension			Arithmetic Conc.			Languages			Science & Social Studies		
		Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile
2	140	2.04	.64	44	2.10	.65	50	2.34	.87	62	1.92	.60	36	2.10	.89	50	2.12	.48	50	–	–	–	–	–	–	–	–	–	–	–	–
3	140	2.96	.94	44	3.13	1.05	50	–	–	–	2.97	1.03	46	2.50	.99	30	–	–	–	2.56	.58	20	3.00	1.00	46	3.10	1.00	50	3.33	1.23	56
4	114	4.05	1.35	50	4.02	1.55	46	3.89	1.07	42	3.35	1.38	40	3.71	1.39	42	3.21	.60	16	3.81	1.41	42	3.92	1.08	34	4.36	1.20	60	4.40	1.52	60
5	132	5.15	1.56	54	5.17	1.80	52	4.84	1.48	44	4.10	1.60	38	4.97	1.79	50	4.03	.65	16	5.32	1.40	58	4.94	1.40	46	5.48	1.42	64	5.48	1.87	60
6	114	5.69	1.44	42	5.92	1.83	44	5.86	2.04	44	–	–	–	6.10	1.91	50	4.88	1.16	18	6.10	1.43	50	5.97	1.84	50	6.15	1.85	52	6.29	2.11	56

In comparison with the national grade level (3.1), (59%ile), the average third grade student at Devonshire was above grade level only in science and social studies; at grade level in paragraph meaning and language; and below grade level on word meaning, spelling, word study skills, arithmetic computation, and arithmetic concepts. Obviously, the students at this particular grade level are relatively weak in word study skills and arithmetic computation. Science and social studies are apparently the strong subjects for the fourth grade students at Devonshire; for on each of these two subjects the mean grade level scores (4.40 and 4.36 respectively) were at the 60th percentile rank. All other subject area grade level means or averages are below the national grade level of (4.1) (50%ile).

Of the ten subject areas in the fifth grade, the typical student at Devonshire was above grade level (5.1) (50%ile) on five subjects and below grade level on five.

Only nine subject matter tests were administered at the sixth grade level. On social studies and science the typical local student was above the national norm; on language, arithmetic concepts and arithmetic application, he was equal to national norm; and on word meaning, paragraph meaning, spelling, and arithmetic computation, he was below the national norm.

The test results for all grade levels, indicate a weakness in the achievement of the computation skills in arithmetic at Devonshire Elementary School. Strange as it may seem, the same degree of deficiency was not observed in arithmetic concepts and arithmetic application.* On the positive side, students attending Devonshire appear to be relatively strong in science and social studies. No consistent pattern was evident between grade levels in the other subject areas on the Stanford Achievement Test.

Albemarle Road Junior High School

At Albemarle Road Junior High School, seventh grade students were administered the Lorge-Thorndike Intelligence Test and eight and ninth grade students were administered the Differential Aptitude Test. In addition, the seventh, eighth, and ninth grade students were administered the Stanford Achievement Test. Verbal, non-verbal, and total intelligence quotients are derived from the Lorge-Thorndike Test. For each subtest of the Stanford Achievement Test, the mean grade equivalent, the standard deviation of the grade equivalent, and the percentile rank for the grade equivalent are presented. Boys' and girls' raw scores on the Differential Aptitude Tests are derived separately and their raw scores are converted to percentile ranks for reporting.

Results on the Lorge-Thorndike Intelligence Test (See Table VIII) reveal that the typical seventh grade student at Albemarle Road Junior High School is almost identical to the average student from the norm group in the nation. In comparison with other seventh grade students in the county, the typical student in the local junior

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*Similar results have been reported in schools where the modern approach to teaching mathematics has recently been introduced.

TABLE VIII

Summary Information for Lorge-Thorndike Intelligence
Test for ALBEMARLE ROAD JUNIOR HIGH SCHOOL

(Test Administered the First Month to Grade Seven)

Grade Level	Number	Mean	Verbal Raw Score	G.E.	%ile	I.G.	Non-Verbal Raw Score	G.E.	%ile	I.Q.	Total I.Q.
7	310		57.0	73.4	49%	101.3	43.6	72.8	49%	101.1	101.4

high surpassed 49 percent of the students in the nation on verbal reasoning (IQ = 101) and non-verbal reasoning (IQ = 101). As would be expected, the total IQ is also 101.

The Stanford Achievement Test (See Table IX) was administered in the first month of the school year. The benchmark for comparing local students with national averages would be 7.1 for the seventh grade, 8.1 for the eighth grade and 9.1 for the ninth grade. For the seventh graders, the grade equivalents on seven of the eight subject areas are slightly below the national average; however, on the one science sub-test, the average local score (7.18-52%ile) was slightly above the national mean. The average student in arithmetic computation at Albemarle Road Junior High School surpassed only 18 percent of the seventh graders in the national norming group.

At the eighth grade level, the mean grade equivalents on all eight subject areas were below grade level (8.1). As in the seventh grade, the highest average for eighth graders was in science; the lowest was in arithmetic computation.

The local mean grade equivalents for ninth grade students on all eight subject areas were below grade level (9.1). However, scores at the ninth grade are generally higher than those observed at the eighth grade. The relative weakness in arithmetic computation remained consistent throughout the various grade levels.

The Differential Aptitude Test (See Table X) was administered to only eighth and ninth grade students at Albemarle Road Junior High School. As indicated before, separate scores for boys and girls are obtained on the nine sub-testsin the battery. The scores are reported

TABLE IX

Summary Information for Stanford Achievement Test
for Albemarle Road Junior High School
(Test Administered the First Month at Each Grade Level)

Grade Level	Number	Paragraph Meaning			Spelling			Language			Arithmetic Comprehension			Arithmetic Conc.			Arithmetic Appl.			Social Studies			Science		
		Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile
7	318	6.97	2.01	50	6.80	2.11	43	6.94	2.16	46	5.61	1.27	18	6.92	1.52	46	6.92	1.49	50	6.95	1.92	50	7.18	2.24	52
8	287	7.44	2.19	38	7.57	2.25	42	7.10	2.15	36	5.66	1.37	12	7.20	1.61	28	7.30	1.72	36	7.43	2.13	38	7.70	2.49	44
9	282	9.01	2.35	50	8.66	2.30	49	8.35	2.20	44	7.63	2.16	24	8.55	2.30	46	8.55	2.12	48	8.77	2.19	48	9.06	2.32	50

TABLE X

Summary Information for Differential Aptitude Test for Albemarle Road Junior High School

(Test Administered the First Month at Each Grade Level)

	Grade Level	Number	Verbal Reasoning		Number Ability		Total VR & NA		Abstract Reasoning		Cler. S & A		Mechanical Reasoning		Sp. Rel.		La Sp.		La GR	
			Mean	%ile	Mean	%ile	Mean	%ile	Mean	%ile	Mean	%ile	Mean	%ile	Mean	%ile	Mean	%ile	Mean	%ile
Boys	8	130	17.2	50	11.6	25	28.8	35	23.9	35	33.6	40	40.6	45	23.2	55	54.1	50	20.2	45
Girls	8	129	17.4	50	12.5	25	30.0	35	26.1	40	42.0	50	34.5	50	21.4	55	61.2	50	24.5	50
Boys	9	132	22.5	55	18.6	45	41.0	50	31.5	55	41.3	60	46.6	55	32.1	65	60.1	50	25.2	50
Girls	9	137	22.1	55	18.6	45	40.7	50	29.6	45	44.5	60	36.0	50	28.6	60	67.2	45	29.0	50

separately because sizeable differences occur on the scores of the different sexes on several of the sub-tests. On this particular test the raw scores are converted only to percentile rank. Therefore, local results will be presented in percentile rank since it is the only interpretation score available.

At the eighth grade level, the typical Albemarle Road Junior High boy was above the national average (55%ile rank) on space relations (the ability to visualize and manipulate shapes and forms) and at the national average (50%ile) on verbal reasoning and spelling. On all other sub-tests the local students scored below the national average.

In relationship to national norms, the Albemarle Road Junior High eighth grade girls achieved better than the boys. Similar to their male counterparts, the mean score for girls on spatial relations was at the 55%ile rank, but they surpassed one-half (50%ile) of the girls in the national group on verbal reasoning, clerical speed and accuracy, mechanical reasoning, spelling, and grammar. On three reasoning aptitude areas -- numerical ability (25%ile), total reasoning (35%ile), and abstract reasoning (40%ile) -- the eighth grade girls at Albemarle Road Junior High were below the national average.

The percentile ranks obtained by both boys and girls at the ninth grade level were generally better than those reached by the two groups at the eighth grade level. For example, the typical ninth grade boy was at, or above, the national average on eight out of nine of the aptitude areas, the exception being numerical ability (45%ile).

The range of percentile ranks for ninth grade girls was from a low of (45%ile) to a high of (60%ile). On clerical speed and accuracy and space relations, the typical ninth grade girl student at Albemarle

Road Junior High scored at the (60%ile); on verbal reasoning, at the (55%ile); on total reasoning, mechanical reasoning, and grammar at the (50%ile); and on numerical ability, abstract reasoning, and spelling, at the (45%ile).

Independence High School

All students at Independence High School were administered the Stanford Achievement Test and the Differential Aptitude Battery. The Watson-Glaser Critical Thinking Appraisal, and the Welsh Figure Preference Test* were administered to the students in the humanities class. Results on all of these tests represent baseline data which, along with post-test data, will be used to measure progress in various phases of the experimental program.

Since grade placement scores on the Stanford Achievement Test (See Table XI) are not obtained for this test at the senior high level, national percentile ranking will be used to discuss results.

At the tenth grade level the typical student at Independence High School was below the national average (50%ile rank) on all subject areas tested.

In addition to the tests which were administered to the tenth graders, the students at the eleventh grade level were administered the business economics and a technical comprehension sub-tests. As a group, the students at the eleventh grade performed slightly better (54%ile rank) than the national group on technical comprehension, and matched (50%ile

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*Results reported in section on Welsh Figure Preference.

TABLE XI

Summary Information for Stanford Achievement Test for Independence High School

(Test Administered the First Month at Each Grade Level)

Grade Level	Number	English			Number Comprehension			Mathematics A.			Reading			Science A.			Social Studies			Spelling			Business Economics			Technical Comprehension		
		Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile
10	363	47.6	9.66	44	46.9	10.1	38	48.2	8.74	42	48.2	9.83	44	47.7	10.27	42	47.2	9.35	42	48.6	9.37	48						
11	431	51.3	10.19	44	49.4	9.79	36	51.1	8.85	50	50.9	10.21	44	50.8	10.23	46	50.9	9.67	42	51.1	9.20	48	47.0	7.44	23	52.6	8.08	54
12	443	54.7	11.07	52	52.3	10.14	44	43.6	11.18	56	54.4	11.21	44	53.4	9.61	48	54.3	11.04	46	52.6	11.23	42	52.6	10.49	32	57.0	7.31	66

rank) the national group on mathematics ability. On all other subject area tests, the local eleventh graders scored below the national average.

The average twelfth grade student at Independence High School surpassed the average student from the national population on English (52%ile), mathematics ability (56%ile), and technical comprehension (66%ile rank). On all other subject area tests, the local students scored below the national average.

As was indicated in a previous section of this report, separate interpretative norms have been established for boys and girls on the Differential Aptitude Test. (See Table XII) At the tenth grade level the typical Independence High School boy equaled (50%ile) his counterpart from the national group on clerical speed and accuracy, mechanical reasoning, space relation, and spelling. On all other subject area tests the boys scored below average. Comparatively, the girls at the tenth grade performed better than their male classmates. They were above the national average on clerical speed and accuracy (65%ile), mechanical reasoning (55%ile), and spatial relations (60%ile); at the national level (50%ile) on spelling and grammar; and below national level (45%ile) on verbal reasoning, numerical reasoning, and total reasoning; and at the 40%ile on abstract reasoning.

The highest rating for eleventh grade boys was on clerical speed and accuracy on which the average local boy surpassed 65 percent of the eleventh grade boys in the national group. On spelling and space relations, however, the mean scores were at the (50%ile rank) on verbal reasoning, total reasoning, and abstract reasoning, the

TABLE XII

Summary Information for Differential Aptitude Test for Independence High School

(Test Administered the First Month at Each Grade Level)

	Grade Level	Number	Verbal Reasoning			Number Ability			Total VR & NA			Abstract Reasoning			Cler. S & A			Mechanical Reasoning			Sp. Rel.			Lu Sp.			Lu GR		
			Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile	Mean	S. D.	%ile
Boys	10	164	25.10	10.82	45	21.09	8.72	40	46.18	18.32	45	30.39	10.91	35	42.01	10.28	50	47.95	9.28	50	29.65	13.55	50	64.42	16.48	50	26.66	10.30	45
Girls	10	179	24.70	10.32	45	21.81	8.06	45	46.51	17.28	45	31.65	10.15	40	48.99	8.57	65	39.98	8.66	55	30.05	12.10	60	73.80	14.47	50	31.58	10.35	50
Boys	11	135	28.78	10.68	45	23.28	8.13	40	52.06	17.47	45	33.90	8.72	45	46.42	10.82	65	48.42	9.11	40	32.82	13.63	50	69.69	15.03	50	29.33	9.94	45
Girls	11	142	30.43	10.84	55	24.71	8.23	55	55.14	17.93	55	34.60	9.53	50	52.59	9.15	70	40.67	7.84	55	31.49	12.36	55	79.13	13.59	50	35.25	10.28	45
Boys	12	123	30.50	10.75	50	25.24	8.68	45	55.74	18.41	45	33.34	11.08	35	46.35	9.84	60	50.87	8.77	50	37.56	13.98	55	70.42	15.96	45	32.39	10.94	50
Girls	12	133	33.06	10.75	55	26.70	7.83	65	59.76	17.18	60	37.60	7.82	60	55.13	10.28	70	43.99	6.95	70	36.99	10.64	65	81.80	13.58	45	39.40	9.41	55

scores were at the 45%ile; and on numerical ability and mechanical reasoning, the local scores were at the 40th percentile rank. Similar to tenth grade results, girls at the eleventh grade performed better than their male classmates on the Differential Aptitude Test. With the exception of grammar (45%ile rank) the typical eleventh grade girl at Independence either matched or exceeded the typical eleventh grade female from the national population. For example, the percentile ranks attained by the average eleventh grade girls are as follows: 70%ile rank for clerical speed and accuracy; 55%ile rank for verbal reasoning, numerical ability, total reasoning, mechanical reasoning, and spatial relations; and the 50%ile rank for abstract reasoning and spelling.

At the twelfth grade level, the typical Independence boy performed better than the average boy in the nation on clerical speed and accuracy (60%ile) and spatial relations (55%ile); as well as (50%ile) the average boy on verbal reasoning, mechanical reasoning, and grammar; and below the average boy on numerical ability (45%ile), total reasoning (45%ile), abstract reasoning (35%ile, and spelling (45%ile). With the exception of spelling (45%ile), all of the means for the twelfth grade grade girls were above average. Percentile ranks by aptitude area are as follows: verbal reasoning, 55%ile; numerical ability, 65%ile; total reasoning, 60%ile; abstract reasoning, 60%ile; clerical speed and accuracy, 70%ile; mechanical reasoning, 70%ile; space relations, 65%ile; and grammar, 55%ile.

As part of the pre-testing for evaluating the humanities program at

Independence High School, a class of thirty-two twelfth grade students was administered the Watson-Glaser Critical Thinking Appraisal Test. In this test the student is required to exercise some of the important abilities involved in critical thinking. Items in the test are classified under Inference, Recognition of Assumptions, Deduction, Interpretation, and Evaluation of Arguments. A brief description of each of these terms follow:

1) Inference is the ability to discriminate among degrees of truth or falsity of inferences drawn from given data.

2) Recognition of Assumptions measures the ability to recognize unstated assumptions or presuppositions which are taken for granted in given statements or assertions.

3) Deduction measures the ability to reason deductively from given statements or premises; to recognize the relation of implication between propositions; to determine whether what may seem to be an implication or a necessary inference from given premises is indeed such.

4) Interpretation measures the ability to weigh evidence and to distinguish between (a) generalizations from given data that are not warranted beyond a reasonable doubt, and (b) generalizations which, although not absolutely certain or necessary, do seem to be warranted beyond a reasonable doubt.

5) Evaluations of Arguments measure the ability to distinguish between arguments which are weak or irrelevant to a particular question at issue.

A student's performance on the test is obtained by converting his total raw score to a percentile rank based on a national sampling. A summary of test results for the thirty-two students in this humanities class was as follows: mean raw score = 67.89; standard deviation = 8.31; and the mean percentile rank = 78. The average student in this particular class, therefore, surpassed 78 percent of the twelfth grade students who comprised the national norm group.

Summary Data From the Welsh Figure Preference Test

The Welsh Figure Preference Test was incorporated in the evaluation procedures for the Experimental Model School Unit Project for three reasons. First, the author of this test, Dr. George S. Welsh, is on the staff of the Psychology Department at the University of North Carolina and in this capacity he has advised members of the Experimental Model School staff on a number of evaluation problems. Secondly, the Welsh Figure Preference Test, though published in 1959, is still primarily in the experimental and developmental stage. The Experimental Model School staff believed that participation in this experimentation would not only contribute to the final standardization of the test but would also contribute to the professional growth of the staff. Finally, the Welsh Figure Preference Test provides a unique personality test which helps provide a variety of data and scores for the appraisal of the Experimental Model School Project. The Welsh Figure Preference Test* was originally designed to afford non-language stimulus material suitable for a wide range of subjects who could not be tested readily with conventional personality inventories and projective methods. The advantage of the test, as outlined by Dr. Welsh are:

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*Information taken from: Welsh Figure Preference Test, Preliminary manual, by George S. Welsh. Consulting Psychologists Press, Inc. Palo Alto, California, 1959.

1) No verbal response from the subject is required.

2) It does not require literacy in any language.

3) The task itself is a simple one that does not require sustained concentration or effort to apprehend the item itself.

4) The required response is readily made by most subjects.

5) Item content is of such a nature that it is entirely suitable for children as well as adults.

6) Nothing is inherent in the item that would make the subject think that there is a "correct answer" or that a particular response is "better" or more "suitable."

7) The scoring is completely objective.

8) Finally, the items may be used as stimulus material for a variety of experiments in the area of preception, esthetics, psychophysics, symbolism, econography, memory, association, and the like.

Twenty-one scores have been developed experimentally. According to the manual, these scales were developed in one of four different ways:

validating scores, empirically, a priori method or by the judged method.

BW (Barron-Welsh Art Scale) - The BW Scale was derived by comparing the frequencies of responses of 37 artists and art students with those of 150 people-in-general.

RA (Revised Art Scale) - This scale was a revision of the Barron-Welsh Art Scale (BW).

Male-Female Scale -(MF) - The MF Scale was devised by contrasting the responses of 75 men and 75 women.

Neuropsychiatric Scale - (NP) - This scale contrasted 100 selected neuropsychiatric patients in a Veterans Administration Hospital with 150 people-in-general.

Children Scale - (CN) - The Children scale was developed by comparing the responses of 82 boys and girls between the ages of six and eight with 150 people-in-general.

A priori keys were developed by classifying the formal structural property of each item in the Welsh Figure Preference Test. On the basis of easily identifiable and recognizable characteristics, the test author assigned 275 of the 400 Welsh Figure Preference Test items into eight scoring keys as follows:

1) RS - Ruled line, simple.
2) RC - Ruled line, complex.
3) FS - Freehand line, simple.
4) FC - Freehand line, complex.

5) CO - Combined Ruled - freehand

6) RK - Black

7) SH - Shading

8) DT - Dotted

The "judged" item scales were developed by a similar method as the a priori content keys except for the fact that a number of judges were used to select the items and the concepts employed were of a more complex nature. Scales developed under this procedure follow:

Movement Scale (MV) - Movement as defined in the scoring of the Rorschach Ink - Blot Test, was employed in selecting the items for this key. Eight judges, all familar with Rorschach scoring, were asked to sort the 400 WFPT items into two groups -- those having a definite kinetic quality which would lend itself to interpretation of movement, and those which were definitely static in appearance and lacked the semblance of movement.

Sex Symbol Scales (male, female, combined, neutral, and mixed) - A group of sixteen judges, experienced in the psychoanalytic and conventional properties of sex symbolism, was requested to sort all 400 items into four categories: (1) male sex symbols (XM), (2) female sex symbols (XF), (3) combined male and female symbols (XC), and (4) neutral symbols (XN), i.e., items that could not be assigned into the first three categories. The judges agreed on 301 items as determined by Chi Square. From this number, the 25 items with the most agreement in each of the four categories (XM, XF, XC, and XN) were selected for the scales. A fifth scale was then obtained from the 99 items upon which there was not a significant agreement. This scale (XX) consists of the 25 items showing the most even distribution among the four original Sex Symbol Scales.

The last scale, the figure-ground scale (FG) is similar to the a priori content keys in that it is based on the formal structure of the items. In the processing of developing the scales, two judges identified 14 pairs of items in which the same figure appeared in two different forms, one time as a dark figure on a light background and another time as a light figure on a dark background. Thus, the 28 item FG Scale contains 14 "like" items (light figures, dark backgrounds) and 14 "don't like" items (the conventional dark figure on a white background. Higher scores are obtained, then, by showing preference for the reverse of the customary figure-ground relationship.

As part of the pre-testing of the Kindergarten program at Clear Creek Elementary School and in the Humanities program at Independence High School, the Welsh Figure Preference Test was administered and scored on the 21 afore-mentioned scales. This data will be used in future evaluation procedures in the project; but, at the present time, the summaries presented will be limited to a comparison of the project experimental students with populations which were presented in the test manual. Additional analyses and interpretation await the further development of project activities.

Table XIII presents the significance of difference of means between 18 children in the Clear Creek Kindergarten and 82 children six and

TABLE XIII

Comparison of Kindergarten Students With National Group On Twenty One Scores Obtained From The Welsh Figure Preference Test

	National Norms Boys & Girls - Six & Eight Year Olds N=42		Kindergarten N=14 Boys & N=14 Girls			
	Mean	S. D.	Mean	S. D.	Diff. in Means	t
Conformance	18.20	3.45	17.22	3.52	1.98	2.11*
Barron-Welsh Art	23.93	10.08	24.03	4.70	-.09	.05
Revised Art	22.70	9.10	26.10	4.98	-3.40	2.07*
Male-Female	16.58	5.07	20.10	3.48	-3.49	3.70*
Neuropsychiatric	20.97	4.61	19.72	2.94	1.25	1.39
Children	20.55	8.75	26.11	6.08	-4.58	2.53*
Ruled, Simple	11.11	7.65	6.07	5.07	4.40	2.72*
Ruled, Complex	17.62	9.11	10.50	6.55	7.12	3.10*
Freehand, Simple	16.10	6.97	9.78	9.25	6.69	2.74*
Freehand, Complex	26.70	13.08	14.94	10.20	11.45	3.45*
Combined Ruled-Freehand	6.75	4.94	2.72	4.15	3.03	2.70*
Block	20.20	10.20	13.60	9.94	6.45	2.61*
Shading	14.90	7.25	7.94	5.20	6.96	4.71*
Dotted	15.98	9.70	9.78	6.03	6.19	2.69*
Sex Symbol-Male	11.58	6.15	7.00	4.98	4.58	3.39*
Movement	28.10	4.63	28.07	3.95	-.10	.10
Sex Symbol-Female	10.05	6.00	6.03	5.10	3.91	2.78*
Sex Symbol-Combined	11.70	6.16	7.22	5.90	4.38	2.47*
Figure-ground Reversed	11.31	2.65	11.22	1.70	.09	.08
Sex Symbol-Neutral	13.65	7.70	6.50	5.12	6.13	4.10*
Sex Symbol-Mixed	13.71	6.65	7.00	5.00	7.10	7.10*

*Significant difference between two means

eight years old from Welsh's norm group. The local kindergarten children scored significantly higher than the norm group on the revised art scale (RA), the Male-Female scale (FM), and the Children Scale (CN). On the other hand, there was a true difference in favor of the norm group on the scales which follow: Conformance (CF) Ruled, Simple (RS), Ruled, Complex (RC; Freehand, Simple (FS); Freehand, Complex (FC); Combined Ruled-Freehand (CO); Black (BK); Shading (SH); Dotted (DT); Sex Symbol, Male (XM); Sex Symbol, Female (XF); Sex Symbol, Combined (XC); Sex Symbol, Neutral (XN); and Sex Symbol, mixed (XX). On four scales (Barron Welsh Art, Neuropsychiatric, Movement, and Figure-ground reversal) no significant difference was observed in the means between the two groups.

When the 15 girls in the humanities class at Independence High School were compared with 75 women from the norm group (Table XIV), the girls in the local experimental group were significantly higher than the women from the norm population on the Barron Welsh Art Scale (BW), the revised Art Scale (RA), Male-Female (FM)' Children (CN), Ruled, Simple (RS), Dotted (DT), Movement (MV), Figure-Ground, Reversed (FG), and Sex Symbol, Neutral (XN). The women were significantly higher than the girls on Conformance (CF), Neuropsychiatric (NP), Freehand, Comples (FC), Combined Ruled, Complex (CO), Shading (SH), and Sex Symbol, mixed (XX).

The boys in the humanities program generally scored higher than the 75 men in the norm group (Table XV). The boys surpassed the men on the Barron Welsh Art Scale (BW), revised art (RA), Male-Female (FM), Children (CN)' Ruled, Simple (RS), Black (BK), Dotted (DT), Sex

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TABLE XIV

Welsh Figure Preference Test
Independence High School: Humanities Class
Grade 12 - Girls

	National Norm Women N=75		Independence High Girls N=15			
	Mean	S. D.	Mean	S. D.	Diff. In Means	t
Conformance	28.25	4.95	25.33	3.57	2.92	2.41*
Barron-Welsh Art	18.14	11.79	43.07	13.60	-24.93	6.63*
Revised Art	19.33	12.20	45.60	13.71	-26.27	7.24*
Male-Female	21.03	6.67	28.47	8.11	-7.44	3.33*
Neuropsychiatric	18.40	6.84	9.80	6.98	8.60	4.43*
Children	13.04	8.49	23.07	7.37	-10.03	4.81*
Ruled, Simple	9.59	9.26	22.47	8.21	-12.88	5.37*
Ruled, Complex	14.38	10.18	14.73	7.34	-.35	.16
Freehand, Simple	27.48	8.52	26.87	5.80	.61	.34
Freehand, Complex	33.57	12.00	18.07	10.14	15.50	5.22*
Combined Ruled-Freehand	10.87	4.45	8.27	3.11	2.60	2.70*
Black	21.71	12.35	21.87	7.32	-.16	.07
Shading	15.93	7.61	8.20	6.18	7.73	4.25*
Dotted	18.63	10.14	23.87	7.57	-5.24	2.31*
Sex Symbol-Male	12.51	6.28	15.13	4.65	-2.62	1.87
Movement	32.92	5.08	38.47	2.75	-5.55	6.03*
Sex Symbol-Female	11.60	5.58	13.40	4.64	-1.80	1.29
Sex Symbol-Combined	13.73	5.64	11.40	3.88	2.33	1.96
Figure-ground Reversal	15.23	2.49	16.67	2.18	-1.44	2.29*
Sex Symbol-Neutral	13.15	6.95	18.40	4.36	-5.25	3.77*
Sex Symbol-Mixed	14.63	5.96	11.00	4.34	3.63	2.75*

*Significant difference between two means

TABLE XV

Welsh Figure Preference Test
Independence High School: Humanities Class
Grade 12 - Boys

	National Norm Men N=75		Independence High Boys N=15			
	Mean	S. D.	Mean	S. D.	Diff. In Means	t
Conformance	27. 89	5. 39	25. 40	6. 08	2. 49	1. 32
Barron-Welsh Art	15. 07	10. 66	41. 00	10. 01	-25. 93	9. 07*
Revised Art	17. 33	11. 46	43. 93	9. 73	-26. 60	9. 47*
Male-Female	15. 12	6. 50	29. 00	6. 72	-13. 88	7. 34*
Neuropsychiatric	20. 05	6. 33	10. 60	4. 94	9. 45	6. 34*
Children	13. 12	7. 18	22. 33	9. 24	-9. 21	3. 65*
Ruled, Simple	7. 20	8. 33	24. 60	3. 03	-17. 40	12. 42*
Ruled, Complex	13. 63	9. 02	17. 60	7. 84	-3. 97	1. 73
Freehand, Simple	27. 50	8. 41	28. 27	8. 16	-. 77	. 33
Freehand, Complex	33. 85	11. 85	25. 47	13. 33	8. 38	2. 26*
Combined Ruled-Freehand	11. 13	4. 39	8. 93	4. 09	2. 20	1. 86
Black	20. 23	10. 47	27. 47	6. 74	-7. 24	2. 99*
Shading	16. 36	7. 25	8. 80	7. 72	9. 11	4. 26*
Dotted	20. 57	7. 20	25. 93	5. 08	-5. 36	3. 17*
Sex Symbol-Male	11. 75	5. 75	15. 47	4. 46	-3. 72	2. 80*
Movement	32. 40	5. 04	35. 87	3. 69	-3. 47	3. 10*
Sex Symbol-Female	10. 85	4. 87	16. 33	3. 86	-5. 48	4. 76*
Sex Symbol-Combined	13. 35	5. 54	13. 33	4. 03	. 02	. 02
Figure-ground Reversal	15. 30	2. 13	16. 20	3. 51	-. 90	. 96
Sex Symbol-Neutral	13. 08	7. 23	20. 40	2. 87	-7. 32	6. 53*
Sex Symbol-Mixed	14. 41	6. 46	12. 53	5. 41	1. 88	1. 18

*Significant difference between two means

Symbol, Male (XM, Movement (MV), Sex Symbol, Female (XF), and Sex Symbol, Neutral (XN). The men, on the other hand scored significantly higher on Neuro-psychiatric (NP), Freehand, Comples (FC), and Shading (SH). On the seven remaining scales there were no significant differences between the two groups.

Summary Data from the Semantic Differential Scale

In November, 1967, the Semantic Differential Scale was administered to students and teachers at Clear Creek Elementary School, Albemarle Road Junior High School, and Independence High School.* At the close of this school year, the instrument will be administered again for the purpose of measuring change and correlating these change scores with change scores from other instruments. The results presented in this report will be limited to a summary of pre-test data.

The Semantic Differential Scale (See Appendix A) is being used extensively to measure the attitudes and opinions of students and teachers toward various aspects of the Experimental Model School Programs. The administration and scoring of the Semantic Differential Test in this particular evaluation were quite simple. Students and teachers participating in the Experimental Model School Project were requested to judge individually seventeen aspects (concepts) of the program by reacting on a seven point continuum to eighteen bi-polar adjectives. (See Figure I) Three scores are derived for each concept from the eighteen bi-polar

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*Devonshire Elementary School did not participate in the testing program.

Figure 1

Example of Semantic Differential Test

CLASSMATES

bad	7	6	5	4	3	2	1	good
ferocious	1	2	3	4	5	6	7	peaceful
worthless	7	6	5	4	3	2	1	valuable
large	1	2	3	4	5	6	7	small
green	7	6	5	4	3	2	1	red
dull	7	6	5	4	3	2	1	sharp
fast	1	2	3	4	5	6	7	slow
hard	1	2	3	4	5	6	7	soft
tasty	1	2	3	4	5	6	7	distasteful
light	7	6	5	4	3	2	1	heavy
awful	7	6	5	4	3	2	1	nice
strong	1	2	3	4	5	6	7	weak
unfair	7	6	5	4	3	2	1	fair
rugged	1	2	3	4	5	6	7	delicate
unpleasant	7	6	5	4	3	2	1	pleasant
active	1	2	3	4	5	6	7	passive
hot	1	2	3	4	5	6	7	cold
deep	1	2	3	4	5	6	7	shallow

Note: The rank position and the order of the bi-polar adjectives were randomly assigned. The values assigned the scales do not appear on the copies given to those taking the test.

adjectives -- the lowest score being the most desirable response. A description of the three scores is as follows:

1) The evaluation score indicates to what degree the respondents consider a program or concept to be valuable or worthless. An evaluation score is obtained by summing the points obtained on the six bi-polar adjectives which follow: Bad-good; worthless-valuable; tasty-distasteful; awful-nice; unfair-fair; and unpleasant-pleasant.

2) An activity score reflects whether the participants think a program or concept is active or passive. Descriptive adjectives contributing to this score are: Ferocious-peaceful; green-red; dull-sharp; fast-slow; active-passive; and hot-cold.

3) A potency score, as the term implies, indicates whether the respondents believe a program or concept is weak or strong. This score is obtained by adding the points obtained on the following bi-polar adjectives: Large-small; hard-soft; light-heavy; strong-weak; rugged-delicate; and deep-shallow.

Since there are six bi-polar adjectives for each of the three scores and each set of bi-polar adjectives has a possible range of seven points, a respondent may have between 6 and 42 points on either of the three scales, evaluation, activity, or potency. (See Figure 2)

FIGURE 2

For discussion purposes, the ranges for the three scores were divided into seven equal intervals and assigned descriptive ratings. The score intervals and descriptive ratings for the three part scores are as follows:

Point Intervals	Descriptive Rating for Evaluation	Descriptive Rating for Activity	Descriptive Rating for Potency
6-11	Quite Valuable	Quite Active	Quite Strong
12-16	Valuable	Active	Strong
17-21	Somewhat Valuable	Somewhat Active	Somewhat Strong
22-26	Between Extremes	Between Extremes	Between Extremes
27-31	Somewhat Worthless	Somewhat Passive	Somewhat Weak
32-36	Worthless	Passive	Weak
37-42	Quite Worthless	Quite Passive	Quite Weak

Pre-Test Data

Students and teachers at Clear Creek Elementary School were requested to react to seventeen phases (concepts) concerning their school program. These concepts were: (1) classmates, (2) experimental programs, (3) non-graded, (4) art, (5) science, (6) independent study, (7) books, (8) school, (9) mathematics, (10) friend, (11) music, (12) physical education, (13) team teaching, (14) reading, (15) me, (16) teachers and (17) social studies. The statistical results are shown in Tables XVI and XVII.

A descriptive breakdown of these tables is presented in Figure 3. To read this tabular presentation for example, one might note that the average fourth grade student at Clear Creek Elementary School rated his classmates as valuable, somewhat active, and somewhat strong. The average fifth grade student did not think quite as highly of his classmates as did the fourth graders, as indicated by his somewhat higher scores on all three scales. The average sixth grade student had even a somewhat poorer image of his classmates than did the students in the other two grades. When the scores range between the extremes, the scale would read "no commitment" and be evidenced on the tabular chart by a blank space. For example, the average sixth grader had no commitment for his classmates on the activity and potency scales. Generally speaking, the teachers at Clear Creek assigned higher ratings to the concepts than did their students. For example, in the reading program at Clear Creek, the teachers rated the program as valuable, somewhat active, and somewhat strong while the students at all grade levels considered reading as valuable but indicated no commitment on the activity and potency scales.

TABLE XVI

Semantic Differential Test Results
For Students on Seventeen Concepts
For Clear Creek School

Grade Level		Classmates			Experimental Programs			Non-Graded			Art			Science			Independent Study		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=23 4	Mean	15.00	20.56	21.00	16.24	23.06	24.73	20.56	23.17	24.00	15.56	23.13	24.62	16.52	22.46	23.26	16.79	24.30	24.43
	S.D.	5.32	4.70	6.74	6.75	5.20	4.90	4.35	4.93	5.50	6.33	4.86	6.44	6.58	5.36	6.20	7.25	3.91	5.62
N=40 5	Mean	16.90	20.90	21.22	17.05	22.52	20.45	22.27	23.05	23.10	16.50	23.00	21.40	19.02	24.22	18.67	15.65	22.95	22.32
	S.D.	7.40	6.10	6.26	7.49	5.47	6.27	8.50	5.90	5.60	10.34	6.02	5.46	10.03	6.17	6.13	8.46	4.19	6.08
N=29 6	Mean	14.72	22.27	22.72	15.62	21.24	21.60	19.31	23.55	23.62	15.65	23.44	22.60	16.37	23.17	23.13	17.41	23.62	22.44
	S.D.	4.62	4.61	4.71	3.70	3.05	5.43	6.15	4.05	5.05	8.00	3.96	3.60	7.72	5.97	4.79	7.76	3.06	4.14

Grade Level		Books			School			Math			Friend			Music			Physical Education		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=23 4	Mean	13.04	20.32	26.27	13.13	21.45	21.27	15.30	24.26	23.06	13.73	23.70	21.51	12.13	25.40	27.54	13.45	22.95	23.63
	S.D.	6.09	4.60	4.23	6.96	5.07	6.50	7.63	3.60	6.07	7.19	6.26	6.74	5.45	4.72	4.93	6.01	5.40	5.63
N=40 5	Mean	15.10	22.65	21.05	19.45	21.10	19.25	19.15	21.07	19.32	12.60	21.07	20.65	15.97	23.05	23.30	13.12	21.20	20.62
	S.D.	6.90	4.30	6.60	11.53	5.40	6.65	10.47	4.96	6.01	7.12	5.60	7.63	10.72	6.05	7.51	6.90	4.64	6.43
N=29 6	Mean	13.75	22.44	24.10	18.96	23.58	20.37	16.41	20.44	21.79	13.34	22.34	20.41	14.07	22.65	22.70	13.71	21.92	22.57
	S.D.	6.64	4.93	4.05	9.50	2.51	3.90	9.36	4.90	5.01	5.60	4.30	3.70	5.50	3.26	4.06	6.10	4.65	5.21

Semantic Differential Test Results
For Students on Seventeen Concepts
For Clear Creek School

Grade Level		Team Teaching			Reading			Me			Teachers			Social Studies		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=23 4	Mean	14.54	24.77	25.66	12.61	24.13	25.36	15.90	21.45	21.77	10.43	22.64	22.00	13.50	21.15	22.65
	S.D.	5.73	4.71	5.10	7.58	5.90	7.45	6.51	5.05	6.49	7.30	5.85	6.61	7.27	6.00	6.78
N=10 5	Mean	15.12	20.20	20.97	15.05	22.46	22.85	14.30	21.00	22.20	16.31	23.00	21.92	14.35	23.66	22.00
	S.D.	7.60	5.20	6.27	9.13	4.90	7.05	6.61	5.35	7.63	10.67	5.29	6.39	8.00	5.20	5.61
N=20 6	Mean	17.20	23.36	21.74	13.60	22.71	22.96	14.50	21.50	22.14	14.71	20.67	21.86	17.96	23.14	22.00
	S.D.	7.61	4.40	4.00	5.35	5.42	4.31	6.71	4.06	4.74	7.26	4.35	3.90	8.20	4.35	4.33

NOTE - THIS IS A CONTINUATION OF THE PRECEDING TABLE.

TABLE XVII

Semantic Differential Test Results
For Teachers on Seventeen Concepts
For Clear Creek School

N=10

Grade Level		Classmates			Experimental Programs			Non-Graded			Art			Science			Independent Study		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	15.10	20.18	17.14	14.82	19.48	18.89	16.18	18.95	18.20	14.10	19.30	21.30	13.13	19.56	19.80	14.92	21.17	18.94
	S.D.	5.61	5.10	6.14	4.95	6.32	6.21	4.90	4.42	6.62	4.89	4.75	5.80	4.18	5.21	5.54	6.00	5.63	6.01

Grade Level		Books			School			Math			Friend			Music			Physical Education		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	16.84	19.82	18.22	15.11	18.80	16.22	16.18	19.21	19.24	11.18	18.72	18.16	14.18	19.61	18.22	14.12	17.20	18.01
	S.D.	4.93	5.61	5.22	5.11	4.73	4.98	5.80	5.14	4.96	4.56	4.03	4.92	3.22	5.20	6.01	4.18	4.83	5.36

Grade Level		Team Teaching			Reading			Me			Teachers			Social Studies		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	14.89	20.17	19.82	12.80	21.40	17.80	11.86	18.72	17.80	14.18	17.11	18.19	16.20	20.01	18.16
	S.D.	4.50	5.16	5.64	5.01	4.82	5.04	5.21	4.16	5.31	6.22	4.86	5.21	4.08	4.80	5.22

Figure 3

Summary of Semantic Differential Descriptive Ratings
Clear Creek Elementary School

Concepts	Scales	Students/Grade Level			Teachers
		4th	5th	6th	
Classmates	Evaluation	Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity	Somewhat Active	Somewhat Active		Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong		Somewhat Strong
Experimental Programs	Evaluation	Valuable	Somewhat Valuable	Valuable	Valuable
	Activity			Somewhat Active	Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong
Non-Graded	Evaluation	Somewhat Valuable		Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Art	Evaluation	Valuable	Somewhat Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Science	Evaluation	Somewhat Valuable	Somewhat Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong
Independent Study	Evaluation	Somewhat Valuable	Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Books	Evaluation	Valuable	Valuable	Valuable	Somewhat Valuable
	Activity				Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong
School	Evaluation	Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity	Somewhat Active	Somewhat Active		Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Strong
Mathematics	Evaluation	Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong

Summary of Semantic Differential Descriptive Ratings (cont'd)
Clear Creek Elementary School

Concepts	Scales	Students/Grade Level			Teachers
		4th	5th	6th	
Friend	Evaluation	Valuable	Valuable	Valuable	Quite Valuable
	Activity		Somewhat Active		Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong
Music	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Weak			Somewhat Strong
Physical Education	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity		Somewhat Active		Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong
Team Teaching	Evaluation	Valuable	Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong
Reading	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Me	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity	Somewhat Active	Somewhat Active	Somewhat Active	Somewhat Active
	Potency				Somewhat Strong
Teachers	Evaluation	Quite Valuable	Somewhat Valuable	Valuable	Valuable
	Activity			Somewhat Active	Somewhat Active
	Potency				Somewhat Strong
Social Studies	Evaluation	Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity	Somewhat Active			Somewhat Active
	Potency				Somewhat Strong

Students and teachers at Albemarle Road Junior High were also requested to appraise seventeen programs (concepts) related to their instructional program. The order in which the concepts were administered is as follows: (1) history, (2) mathematics, (3) teachers, (4) me, (5) art, (6) team teaching, (7) classmates, (8) school, (9) humanities, (10) friend, (11) independent study (12) reading, (13) industrial arts, (14) English, (15) music, (16) experimental program, and (17) science. Statistical results are presented in Tables XVIII and XIX, and the descriptive tabular results are reported in Figure 4.

TABLE XVIII

Semantic Differential Test Results
For Students on Seventeen Concepts
For Albemarle Road School

Grade Level		History			Math			Teachers			Me			Art			Team Teaching		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=308 7	Mean	20.10	22.48	18.70	20.57	22.96	19.46	18.41	21.44	21.17	15.07	20.18	22.41	16.71	23.03	23.22	18.66	21.76	21.42
	S. D.	7.02	4.63	5.03	9.01	4.46	5.27	8.10	4.15	4.91	6.25	4.17	6.34	8.88	4.67	4.80	8.46	3.86	4.14
N=263 8	Mean	20.05	21.88	18.29	18.58	21.89	19.22	19.06	21.18	20.96	15.22	20.30	21.88	16.51	22.71	23.04	19.39	22.84	21.12
	S. D.	6.72	4.89	4.81	8.61	4.75	5.50	7.76	4.37	4.78	5.73	4.33	5.70	8.72	4.75	5.12	9.06	4.27	4.81
N=260 9	Mean	21.37	22.21	18.28	18.70	22.55	19.77	19.32	21.69	21.70	15.67	20.65	22.84	17.76	23.72	23.33	18.64	22.41	21.54
	S. D.	7.45	4.67	4.76	8.00	4.69	5.47	8.40	4.35	4.63	6.26	4.76	5.70	8.52	5.07	4.40	8.66	4.48	4.59

Grade Level		Classmates			School			Humanities			Friend			Independent Study			Reading		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=308 7	Mean	14.40	21.02	22.67	17.59	21.09	18.42	17.87	23.02	21.94	11.35	20.77	22.45	17.00	23.58	22.04	15.84	23.67	23.07
	S. D.	6.77	4.29	4.73	9.73	4.75	5.24	8.76	4.16	4.65	5.45	4.63	5.54	8.27	4.94	4.75	8.52	4.86	4.72
N=263 8	Mean	15.02	21.42	22.24	17.96	21.97	18.99	17.43	22.78	21.59	11.48	20.63	21.87	16.79	23.35	21.55	14.83	22.91	22.59
	S. D.	6.75	4.18	4.62	9.18	4.72	5.56	7.72	4.30	4.98	5.47	4.22	5.52	7.81	4.63	5.16	8.44	4.75	5.02
N=260 9	Mean	15.43	20.75	21.83	18.98	22.11	19.12	17.05	22.21	22.23	11.67	20.64	21.70	16.12	22.77	21.71	15.72	23.68	23.14
	S. D.	7.03	4.60	4.43	9.11	5.33	5.09	7.41	4.45	4.34	5.50	4.40	4.66	7.87	4.83	5.07	8.88	5.11	4.77

Semantic Differential Test Results
For Students on Seventeen Concepts
For Albemarle Road School

Grade Level		Industrial Arts/ Home Economics			English			Music			Experimental Program			Science		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=308 7	Mean	12.88	21.10	21.54	19.40	24.28	21.86	13.73	21.63	22.85	15.90	22.44	21.73	18.02	22.25	20.26
	S. D.	1.40	4.33	5.44	9.13	4.51	5.48	8.26	4.70	5.21	7.63	4.47	5.62	9.81	4.75	5.58
N=263 8	Mean	14.71	21.77	20.97	18.04	23.69	21.41	14.54	21.55	22.20	16.73	22.71	21.60	20.84	23.46	20.68
	S. D.	7.86	4.73	5.00	8.45	4.81	4.65	8.38	4.48	4.81	7.49	4.22	4.44	10.02	4.94	5.22
N=260 9	Mean	15.20	21.79	21.69	19.74	24.85	21.87	14.20	21.44	22.78	17.44	22.39	22.39	23.43	23.30	19.23
	S. D.	8.09	4.84	5.03	8.55	4.80	4.83	8.13	5.11	4.59	7.28	4.33	4.41	10.27	5.59	5.39

NOTE - THIS IS A CONTINUATION OF THE PRECEDING TABLE.

TABLE XIX

Semantic Differential Test Results
For Teachers on Seventeen Concepts
For Albemarle School

N=49

Grade Level		History			Math			Teachers			Me			Art			Team Teaching		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	16.10	19.82	17.99	15.18	19.21	17.90	13.99	19.28	19.22	11.14	19.11	19.14	16.28	19.40	18.22	13.88	16.12	19.00
	S.D.	5.06	4.03	5.83	4.29	4.80	5.01	5.03	5.11	6.01	9.51	4.03	4.63	5.10	5.08	6.01	4.22	4.90	5.14

Grade Level		Classmates			School			Humanities			Friend			Independent Study			Reading		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	15.03	18.26	17.22	13.86	20.02	19.26	16.28	20.05	18.12	13.90	20.18	20.70	14.10	20.03	19.75	15.26	21.48	19.12
	S.D.	4.82	4.30	5.52	5.83	4.90	4.82	4.06	5.10	6.03	5.06	4.75	5.10	4.80	5.18	4.93	6.77	5.63	6.19

Grade Level		Industrial Arts/ Home Economics			English			Music			Experimental Programs			Science		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	16.12	21.10	20.09	13.30	19.67	18.73	13.18	18.20	19.05	14.18	16.12	18.22	16.88	17.22	19.20
	S.D.	4.93	5.18	4.17	4.26	4.82	6.10	4.80	5.13	4.86	4.22	5.02	4.89	4.95	5.13	4.93

Figure 4

Summary of Semantic Differential Descriptive Ratings
Albemarle Road Junior High School

Concepts	Scales	Students/Grade Level			Teachers
		7th	8th	9th	
History	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Math	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Teachers	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity	Somewhat Active	Somewhat Active		Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong		Somewhat Strong
Me	Evaluation	Valuable	Valuable	Valuable	Quite Valuable
	Activity	Somewhat Active	Somewhat Active	Somewhat Active	Somewhat Active
	Potency				Somewhat Strong
Art	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Team Teaching	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Active
	Potency	Somewhat Strong	Somewhat Strong		Somewhat Strong
Classmates	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity	Somewhat Active	Somewhat Active	Somewhat Active	Somewhat Active
	Potency				Somewhat Strong
School	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity	Somewhat Active			Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Humanities	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong

Summary of Semantic Differential Descriptive Ratings (cont'd)
Albemarle Road Junior High School

Concepts	Scales	Students/Grade Level			Teachers
		7th	8th	9th	
Friend	Evaluation	Quite Valuable	Quite Valuable	Valuable	Valuable
	Activity	Somewhat Active	Somewhat Active	Somewhat Active	Somewhat Active
	Potency				Somewhat Strong
Independent Study	Evaluation	Somewhat Valuable	Somewhat Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Reading	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Industrial Arts/Home Economics	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity	Somewhat Active			Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong
English	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency		Somewhat Strong		Somewhat Strong
Music	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity			Somewhat Active	Somewhat Active
	Potency				Somewhat Strong
Experimental Programs	Evaluation	Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Science	Evaluation	Somewhat Valuable	Somewhat Valuable		Somewhat Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong

Students and teachers at Independence High School were also requested to appraise seventeen concepts related to their instructional program. These concepts were: (1) college preparatory, (2) me, (3) science, (4) art, (5) music, (6) classmates, (7) history, (8) experimental programs, (9) humanities, (10) friends, (11) mathematics, (12) teachers, (13) independent study, (14) English, (15) vocational courses, (16) school and (17) team teaching. Statistical results are presented in Tables XX and XXI and the descriptive tabular results are reported in Figure 5.

TABLE XX

Semantic Differential Test Results
For Students on Seventeen Concepts
For Independence School

Grade Level		College Preparatory			Me			Science			Art			Music			Classmates		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=225 10	Mean	17.78	21.92	18.08	16.21	20.67	22.61	22.34	20.40	18.46	16.39	22.87	23.00	13.37	21.08	22.36	15.80	21.90	22.46
	S.D.	6.41	4.70	6.12	6.33	4.72	6.50	8.46	5.66	5.30	6.10	5.14	5.00	6.40	4.61	4.97	6.07	4.41	4.71
N=261 11	Mean	18.65	21.46	16.90	16.25	20.94	22.30	21.00	21.61	18.61	15.96	22.95	22.96	13.20	20.80	21.72	15.61	21.94	22.16
	S.D.	6.66	4.53	5.92	5.96	4.75	6.26	8.25	5.10	5.72	7.47	4.63	4.91	6.10	4.80	5.30	6.51	4.30	4.54
N=210 12	Mean	18.64	21.42	18.10	15.16	21.27	21.70	20.60	21.66	16.78	14.55	22.54	21.57	12.59	20.67	20.97	15.61	21.82	21.93
	S.D.	6.29	4.24	5.96	5.65	4.78	6.06	8.67	5.35	5.60	6.78	4.80	4.90	6.34	4.67	5.06	6.95	4.71	4.60

Grade Level		History			Experimental Programs			Humanities			Friend			Math			Teachers		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=225 10	Mean	20.90	24.19	19.67	17.43	22.72	21.62	16.65	20.32	21.90	13.61	21.40	21.91	21.40	20.47	18.63	18.50	22.71	21.13
	S.D.	9.06	5.23	5.52	7.77	4.52	4.61	6.73	3.80	4.78	6.36	4.62	5.35	9.06	4.65	6.06	8.52	4.50	5.60
N=261 11	Mean	21.43	23.00	19.26	16.06	22.29	21.36	16.21	20.20	21.35	11.90	20.66	21.15	22.34	20.52	18.16	16.24	22.26	21.08
	S.D.	9.13	4.91	5.50	7.19	4.33	5.07	6.40	3.37	4.60	5.56	4.40	5.27	9.01	5.26	5.61	8.20	4.40	4.71
N=210 12	Mean	22.96	23.01	19.52	17.61	22.59	20.80	16.00	22.46	20.35	11.91	20.60	20.39	21.40	22.39	16.40	17.65	22.10	20.50
	S.D.	8.95	5.59	5.40	7.05	4.67	4.75	7.40	4.60	5.47	6.30	4.85	5.22	9.25	5.64	5.82	7.70	4.35	5.13

Semantic Differential Test Results
For Students on Seventeen Concepts
For Independence School

Grade Level		Independent Study			English			Vocational Courses			School			Team Teaching		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
N=225 10	Mean	17.23	23.52	21.37	19.85	22.84	22.27	16.65	22.88	21.68	17.13	21.94	18.13	18.54	22.90	21.75
	S.D.	7.68	4.73	5.66	9.11	6.50	5.66	6.61	6.10	4.90	8.50	4.62	5.67	8.03	4.98	5.60
N=231 11	Mean	17.60	23.00	21.90	16.96	22.35	21.76	16.35	22.45	21.51	17.30	21.67	18.50	18.67	22.88	22.10
	S.D.	7.13	3.97	4.88	7.41	4.35	5.36	6.60	4.25	4.86	7.67	4.47	5.34	7.92	4.34	4.95
N=230 12	Mean	17.55	23.67	21.16	16.42	22.30	18.84	15.14	22.00	20.51	15.60	21.63	18.85	18.74	22.70	21.85
	S.D.	7.09	4.46	5.30	7.47	4.96	5.56	6.90	4.50	5.27	7.40	5.10	5.35	8.00	4.52	5.12

NOTE - THIS IS A CONTINUATION OF THE PRECEDING TABLE.

TABLE XXI

Semantic Differential Test Results
For Teachers on Seventeen Concepts
For Independence School

N=71

Grade Level		College Preparatory			Me			Science			Art			Music			Classmates		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	14.80	19.27	16.28	15.07	20.29	18.79	15.26	19.66	19.19	13.83	20.30	20.43	12.13	20.16	20.06	15.23	20.48	19.12
	S.D.	5.66	4.20	5.52	5.85	4.70	5.41	5.70	4.42	5.92	5.42	4.75	5.93	4.26	5.46	5.58	6.67	5.63	6.10

Grade Level		History			Experimental Programs			Humanities			Friend			Math			Teachers		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	15.71	20.53	17.99	14.04	18.89	17.56	14.09	20.44	18.25	10.46	19.86	18.13	15.53	20.75	17.33	12.52	19.80	18.00
	S.D.	5.90	5.04	5.88	6.22	4.92	5.13	5.83	5.17	6.08	4.51	4.03	4.85	6.50	5.38	6.64	5.19	4.51	5.36

Grade Level		Independent Study			English			Vocational Courses			School			Team Teaching		
		E	A	P	E	A	P	E	A	P	E	A	P	E	A	P
All Grades	Mean	15.34	21.18	20.24	12.91	20.89	17.71	12.49	20.86	19.77	13.43	19.50	17.51	15.31	19.37	17.38
	S.D.	6.01	4.77	5.64	5.79	5.18	5.79	5.18	4.63	5.87	5.37	4.77	5.57	6.08	4.60	5.48

Figure 5

Summary of Semantic Differential Descriptive Ratings
Independence High School

Concepts	Scales	Students/Grade Level			Teachers
		10th	11th	12th	
College Preparatory	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity		Somewhat Active		Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Strong
Me	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity	Somewhat Active	Somewhat Active	Somewhat Active	Somewhat Active
	Potency				Somewhat Strong
Science	Evaluation		Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Art	Evaluation	Valuable	Valuavle	Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
Music	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity	Somewhat Active	Somewhat Active	Somewhat Active	Somewhat Active
	Potency			Somewhat Strong	Somewhat Strong
Classmates	Evaluation	Valuable	Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong
History	Evaluation				Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Experimental Program	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Humanities	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency		Somewhat Strong	Somewhat Strong	Somewhat Strong

Summary of Semantic Differential Descriptive Ratings (cont'd)
Independence High School

Concepts	Scales	Students/Grade Level			Teachers
		10th	11th	12th	
Friend	Evaluation	Valuable	Valuable	Valuable	Quite Valuable
	Activity	Somewhat Active	Somewhat Active	Somewhat Active	Somewhat Active
	Potency		Somewhat Strong	Somewhat Strong	Somewhat Strong
Math	Evaluation	Somewhat Valuable		Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Teachers	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Independent Study	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Strong
	Potency	Somewhat Strong		Somewhat Strong	Somewhat Strong
English	Evaluation	Somewhat Valuable	Somewhat Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong		Somewhat Strong	Somewhat Strong
Vocational Courses	Evaluation	Somewhat Valuable	Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency			Somewhat Strong	Somewhat Strong
School	Evaluation	Somewhat Valuable	Somewhat Valuable	Valuable	Valuable
	Activity				Somewhat Active
	Potency	Somewhat Strong	Somewhat Strong	Somewhat Strong	Somewhat Strong
Team Teaching	Evaluation	Somewhat Valuable	Somewhat Valuable	Somewhat Valuable	Valuable
	Activity				Somewhat Active
	Potency				Somewhat Strong

In order to help summarize the responses made on the Semantic Differential Test, the frequencies and the percentage of the number of concept averages by students and teachers on each of the respective scales, evaluation, activity, and potency, are presented in Tables XXII, XXIII, and XXIV. On the evaluation scale, 51 average concepts assigned by the teachers were distributed in a skewed curve with all responses above the in-between scores and 90 percent of these scores in the valuable category. On the other hand, student concept averages formed a somewhat more normal curve, but all responses were above the somewhat worthless scale with 94 percent of these scores falling in the two categories -- valuable, and somewhat valuable. When combining the average scores (204) for students and teachers, 3 percent were classified as quite valuable, 54 percent as valuable, 40 percent as somewhat valuable, and 3 percent were between the extreme ratings.

Activity scores for the two groups were somewhat lower and fell in only two categories for each group. Only 2 percent of the average concept scores for teachers fell within the active range, whereas 98 percent of the average scores were described as somewhat active. Approximately 22 percent of the students' activity mean concept scores were in the somewhat active category and the remaining 78 percent fell between the active and passive extremes - a non-commital score. Total mean concept scores for the combined groups were as follows: 1 percent active, 41 percent somewhat active, and 58 percent between extremes.

TABLE XXII

Frequency of Descriptive Ratings for Teachers and Students For the Evaluation Score on the Semantic Differential Test

Category of Respondents	Number of Concept Averages	Descriptive Ratings for Evaluation Scale						
		Quite Valuable	Valuable	Somewhat Valuable	Between Extremes	Somewhat Worthless	Worth-less	Quite Worthless
Teachers	51	3-(6%)	46-(90%)	2-(4%)	0	0	0	0
Pupils	153	3-(2%)	64-(42%)	80-(52%)	6-(4%)	0	0	0
TOTALS	204	6-(3%)	110-(54%)	82-(40%)	6-(3%)	0	0	0

TABLE XXIII

Frequency of Descriptive Ratings for Teachers and Students
For the Activity Score on the
Semantic Differential Test

Category of Respondents	Number of Concept Averages	Descriptive Ratings for Activity Scale						
		Quite Active	Active	Somewhat Active	Between Extremes	Somewhat Passive	Passive	Quite Passive
Teachers	51	0	1-(2%)	50-(98%)	0	0	0	0
Pupils	153	0	0	34-(22%)	119-(78%)	0	0	0
TOTALS	204	0	1-(1%)	84-(41%)	119-(58%)	0	0	0

TABLE XXIV

Frequency of Descriptive Ratings for Teachers and Students For the Potency Score on the Semantic Differential Test

Category of Respondents	Number of Concept Averages	Descriptive Ratings for Potency Scale						
		Quite Strong	Strong	Somewhat Strong	Between Extremes	Somewhat Weak	Weak	Quite Weak
Teachers	51	0	2-(4%)	49(-96%)	0	0	0	0
Pupils	153	0	0	57-(37%)	96-(63%)	0	0	0
TOTALS	204	0	2-(1%)	106-(52%)	96(-47%)	0	0	0

The summary of the potency scale indicates that teachers thought more programs in the experimental project were stronger than did the students. Of the 51 derived teacher mean concept scores, 4 percent were classified as strong and 96 percent as somewhat strong. Student mean concept scores, on the other hand, were distributed as follows: 37 percent as somewhat strong and 63 percent between extremes. The mean concept scores for the combined population were distributed as follows: 1 percent as strong; 52 percent as somewhat strong; and 47 percent as between extremes.

At this stage in the evaluation, the results of the Semantic Differential Test probably proposed more questions than they provided answers. Since this particular test was administered to students and teachers in late November, conclusions at the writing of this report are obviously premature. This and other data included therein are presented primarily as baseline information which will serve, hopefully, in conducting a comprehensive and qualitative evaluation in the future.

Summary Data for Independent Study Program

Teachers at Albemarle Road Junior High and Independence High Schools conducted informal evaluations of their independent study students at mid-year to obtain information for improving this program. Although this evaluation was conducted fairly early in the school year and is not too comprehensive, the results are presented in this report to provide insight into how students reacted initially to this program as well as to demonstrate some of the evaluation procedures to be employed in the future.

At Independence High School, 25 mathematics and science pupils and 44 language arts and social studies students completed a questionnaire designed to determine whether they had benefited more from the Independent Study Program than they might have if they had remained in their regular classes.

Table XXV is a summary of responses from 25 mathematics and science students on factors related to the Independent Study Program. As the table indicates over 50 percent of the responding pupils read, studied and enjoyed their subjects more in the Independent Study Program than they did in the regular school program; between 40 and 50 percent state that they question themselves and their teachers more; and 44 percent of the students indicate that they "goof-off" more. A substantial number of responses indicated that no apparent difference existed between the independent study and regular school program. Therefore, one might conclude that a majority of the participating students thought that the new program was as good or better than the traditional program in the school.

A large majority of these same students also reported that:

1) No significant problem exists in contacting their subject matter teachers.

2) No need exists to work more closely with subject matter teachers or subject matter specialists.

3) Both freedom to work independently and some supportive guidance are positive characteristics of this program.

TABLE XXV

Results of Independent Study Questionnaire For Mathematics and Science Students

Item	Number & Percentage							
	More		Less		Same		Do Not Know	
	N	%	N	%	N	%	N	%
Information Learned	12	48.0	6	24.0	7	28.0	0	0
Skills Improved	7	29.1	3	12.5	14	58.2	0	0
Study Habits Improved	9	36.0	3	12.0	12	48.0	1	4.0
Questioned - In General	3	14.3	8	38.1	8	38.1	2	9.5
Questioned - Self	11	45.7	2	8.3	11	45.7	0	0
Questioned - Subject Matter	8	33.3	5	20.8	11	45.7	0	0
Questioned - Teachers	10	43.5	3	13.1	9	39.1	1	4.2
Enjoy Subject	16	64.0	1	4.0	8	32.0	0	0
Like to Read	8	33.3	1	4.2	14	58.2	1	4.2
"Goofed Off"	11	45.7	3	12.5	10	41.6	0	0
Memorized	6	24.0	6	24.0	12	48.0	1	4.0
Studied	15	60.0	5	20.0	5	20.0	0	0
Went Into Depth	8	32.0	6	24.0	11	44.0	0	0
Read	14	56.0	1	4.0	10	40.0	0	0
Used Films, Tapes, Records, etc.	9	36.0	4	16.0	10	40.0	2	8.0

4) Materials are readily available for independent study and few students have difficulty with independent research.

5) Students have been truly independent and feel that they are responsible to themselves.

The 44 student participants in language arts and social studies courses were even more favorably impressed with the Independent Study Program Table(XXVI). Over 50 percent of the students from this group indicated that the Independent Study Program surpassed the regular school program in the areas which follow: information learned, skills improved, study habits improved, questioned self more, questioned subject matter more, enjoys subject, studies more, goes into more depth, reads more, questioned teacher less, and memorizes less. Fewer students (45 percent) stated that they used more films, tapes, and records than they would have used in a regular class situation. The only negative reaction came from eleven students (25 percent) who stated that they "goof-off" more in the Independent Study Program than they did in the regular school program.

Like the students participating in the science-mathematics Independent Study Program, the students in the language arts-social studies program believe that a climate has been established for promoting independent study. For example, the students believe that teachers in the Independent Study Program are available for consultation but they no

TABLE XXVI

Results of Independent Study Questionnaire For Language Arts and Social Studies Students

	Number & Percentage							
	More		Less		Same		Do Not Know	
Item	N	%	N	%	N	%	N	%
Information Learned	28	63.5	2	4.5	8	18.2	6	13.6
Skills Improved	29	65.8	2	4.5	8	18.2	5	11.4
Study Habits Improved	26	59.0	4	9.1	12	27.2	2	4.5
Questioned - In General	17	50.0	3	8.8	10	29.4	4	11.8
Questioned - Self	27	64.3	0	0	11	26.2	4	9.5
Questioned - Subject Matter	22	52.4	0	0	16	38.1	4	9.5
Questioned - Teachers	8	19.1	12	28.6	18	42.8	4	9.5
Enjoy Subject	29	65.8	1	2.3	13	29.5	1	2.3
Like to Read	21	48.7	2	4.6	20	46.4	0	0
"Goofed Off"	11	25.0	10	22.7	23	52.2	0	0
Memorized	7	16.6	27	64.3	6	14.3	2	4.8
Studied	22	49.9	1	2.3	17	38.6	4	9.1
Went Into Depth	31	70.4	1	2.3	11	25.0	1	2.3
Read	38	86.3	0	0	5	11.3	1	2.3
Used Films, Tapes, Records, etc.	20	45.4	13	29.5	10	22.7	1	2.3

longer need to rely on them as much as they did in the past. The students further reported that the availability of materials, the assistance from teachers, and their ability to work on their own have made this program one in which the pupil can dutifully operate on an independent basis.

At Albemarle Road Junior High School, a somewhat different approach was used to evaluate the Independent Study Program. In one instance, the teacher evaluated fifteen students enrolled in independent study activities in language arts and social studies. The questionnaire was designed to measure the students' abilities in establishing their own objectives, developing self-discipline, finding available resources, and adjusting to this freedom.

In responding to the question concerning the establishment of objectives the teacher reported that twelve students were able to perceive worthwhile things to do with help from the teacher. On the question of self-discipline the teacher reported that five students had a daily plan of action and wasted no time in following the plan each day. The remaining ten students had a daily plan of action but failed occasionally to follow through on the plan. In addition, ten students found on their own appropriate resources in and out of the school; three found, on their own, resources located within the school; and only three needed some help in gathering resources. None of the students had constant assistance from their teachers or others.

Results also indicated that these students were adapting well to the freedom provided in the Independent Study Program. For example, four of the fifteen students felt comfortable with the freedom afforded by independent study and profited from it; whereas, the remaining eleven students felt comfortable with the new freedom and usually used it well.

The teacher of the mathematics and science junior high school independent study students, however, presented a somewhat different evaluation of the students' reactions to the Independent Study Program. Although, according to the teacher, a number of students were adapting well to this new program, a number still need to make significant improvement in their work and study methods. The following are problems identified by the teacher:

Many students -

1) are low ability students.
2) either do not work or work only when urged or reminded.
3) either never indicate self-direction or seldom accept responsibility.
4) are either never curious enough to gather facts or accept facts as presented.
5) either never express new ideas or generally use familiar ideas.
6) depend entirely on group opinion.

7) disrupt students around them.

8) hesitate in approaching a new problem

9) display little ability to reason constructively.

10) understand and remember only simple facts.

11) do not work at a level consistent with their potential level.

Since the above report on the Independent Study Program is based on data collected early in the project year and because all students and teachers were not involved in this phase of the evaluation, final conclusions as to the strengths and weaknesses of this program should be delayed to a later date. This somewhat superficial evaluation, however, does point up some of the problems associated with this particular program as well as provides a tentative picture of the reception on the part of students. The more comprehensive evaluation to be conducted before the close of the current school year should provide information which will assist the project staff, teachers, and pupils to make significant improvements in the Independent Study Program.

Evaluation Costs

The cost estimate for the project evaluations described and/or referenced herein, totals $15,000.

This estimate reflects the cost associated with materials, reproduction, dissemination, tabulation, etc. Staff salaries are presented in the financial section of this proposal and are not included in the above estimate.

1. (b) For planning activities, attach one copy of the results of the planning.

The Charlotte-Mecklenburg School District, through its Experimental Model School Unit, has fostered a comprehensive operational project which serves to identify, select, test and evaluate innovative experimental programs that address vital local educational needs. Initiation of this project has involved the assessment, scheduling and expenditure of extensive and diverse resources and therefore demanded a sound method of planning and control.

Determination and definition of objectives was the initial and most important step in the organization and planning for the project. These objectives serve as the yardstick against which all accomplishments are continually measured and evaluated.

The problems encountered in planning the project were broad in scope, often presenting difficulty defining the objectives and involving the services of many participants. Determinations requiring clarification to assure effective planning were:

- definition of overall project goals
- determination of program objectives and their relationship to the overall project goals
- evaluation of impact of interrelated tasks
- assessment of available organizational, physical, human and financial resources available for application to the project
- allocation of resources, financial planning

- generation of techniques to monitor and measure progress on each task

In response to these requirements, the total project was first structured into a Summary Planning Breakdown Structure, page II-82 (b). This served to visually define the total project by classifying individual programs within identified educational strategies.

Once completed, Planning Breakdown Structures were then developed for each program, pages II-84 (b) through II-99 (b), to delineate and reflect their individual organization of objectives. Each Planning Breakdown Structure was developed downward by proceeding from the definition of the program objectives through successive levels to the lowest level deemed necessary for effective planning and subsequent management.

These graphic representations established a common framework for the accomplishment of the work to be performed. They provided a method for the assignment of responsibilities, delineated a means for monitoring progress and provided a basis for uniform planning and visibility.

The above determination and organization of objectives enabled the preparation of individual program plans which are presented herein as Planning Networks, pages II-84 (b) through II-99 (b). These Planning Networks set forth the nature, sequence and interrelationship of supporting objectives which had to be accomplished to achieve prime program objectives. They historically present significant achievements to date and also reflect the planned scope of effort through the end of the funding period.

SP 002234

pp. 2/82 - 2/99 missing

I called the school district, and found that the missing pages are very large charts - hence omitted intentionally. There is nothing left out of the text.

Thus, will you please write on the bottom margin of p. 2/81 that the missing pages are charts which may be obtained upon request to the Charlotte-Mecklenburg School District, Charlotte, N.C.

Thanks -

Each Planning Network clearly indicates the manner and order in which interim objectives (events) were and are to be performed. Since all network events could not commence simultaneously, due to technical restraints and/or resource limitations, they have been organized in logical sequence according to their desired relationships and interdependencies. For purposes of work initiation and progress evaluation every network event has been assigned an expected date of occurrence.

In order to effectively implement our program plans we then developed a procedure to permit incremental reporting of progress versus each program plan. This procedure, the Summary Status Report(Appendix A). is a bi-monthly requirement placed on each program coordinator by the project director. Adherence to their submission has provided for the early detection and specific description of potentially significant problem areas while there was still time to seek solutions.

In summary, the planning activities associated with this project consists of documentation which delineates the various program tasks requiring execution for achievement of objectives plus a uniform method of assessing and evaluating our progress.

2. Briefly describe project endeavors in which anticipated results have exceeded expectations, and those in which results have not measured up to expectations.

The Experimental Model School Unit is committed to experimentation in its attempts to help the student develop skills, attitudes, and competencies to realize his potential so that he can make a unique contribution to the society in which he lives. In view of this commitment, personnel in the Experimental Model School Unit have evaluated the operational programs in terms of experimentation and innovation. Some endeavors have exceeded expectations, while others have not measured up to anticipated results.

a. Project Endeavors Which Exceeded Expectations

1) Team Teaching

(a) Utilization of professional people in professional ways has been more effective.

(b) Individualized instruction has been designed for many levels of achievement.

(c) Development of instructional materials has been directed according to student needs.

(d) Large and small group instruction has been geared to circumstances which indicate learning can be accomplished in this way.

(e) Teaming for cooperative planning and cooperative teaching has provided for the proper use of teacher talents and for individual instruction.

(f) Structuring new curricula according to the identification of sequential skills has been developed toward short and long range goals.

(g) Evaluating teaching techniques, curriculum materials and staff utilization has followed realistic procedures.

(h) Interaction among team members has exhibited strong professional attitudes.

(i) Involving consultative and resource personnel has broadened the potential of the team.

2) Independent Study

The use of the learning resource center with emphasis on independent study can be classified as one of the project endeavors that exceeded expectations as shown by the enthusiasm on the part of the students involved. Independent study provided students with the opportunities to learn essential knowledge and skills; helped students to develop habits of intellectual inquiry with increasing personal responsibility and decreasing faculty supervision; and, provided for enrichment, remedial and tutorial opportunities. The influence of independent study on the instructional program of the total school was uplifting, exciting and deepening.

3) Interest and Involvement of Supportive Staff

In many instances faculty members from each department or subject area worked closely with teachers and students directly related to the experimental programs.

4) Kindergarten

Students in the kindergarten program have shown continued progress in their work and social habits. Evaluation of this program was done by both lay and professional persons. A copy of this evaluation form is shown in Appendix A.

5) Nature Center

The use of the Nature Center as an outdoor laboratory for students at Independence has given depth to the science courses. Studies in biology, ecology, botany, and zoology have been made more meaningful by experience provided by the Nature Center. The integration of science and other academic areas such as social studies has been facilitated.

Science units have been prepared for grades in the elementary schools. In conjunction with these units one biology teacher has worked with elementary teachers to plan field trips to the Nature Center. In our opinion the close work between the biology teachers and the elementary teachers has not only benefited the students but has also functioned as in-service training for all teachers involved.

Because of the facilities provided by the Nature Center, students not currently enrolled in a biology course have elected to work on independent projects based on their individual interests in science.

The Nature Center has also been a stimulant for a group of 40 students who have organized an out-door club. The primary purpose of the club is service for the Nature Center - maintenance as well as the development of the outdoor educational areas and programs.

As a result of the Nature Center activities, two new courses have been added to the curriculum - horticulture initiated in 1967-68 and conservation to be added in 1968-69.

b. Project Endeavors Which Did Not Measure Up To Expectations

1) Inter and Intra Communications

(a) Channels of communication among personnel between the four experimental schools and within each school itself were not clearly defined.

(b) Staff members experienced some difficulty in communicating effectively and accurately the purposes and roles of the Experimental Model School to other public school groups.

2) In-Service Education

(a) Inasmuch as notification of grant approval was not received until July 20, and, inasmuch as by this date teachers have made prior commitments for their summer months, it was impossible to conduct any training or orientation sessions for the in-service teachers who were to be employed in the Project. As a result, misunderstandings relative to the specifics of their responsibilities ensued. Future plans, however, reflect ideas and ways to improve this situation.

(b) Teachers and principals in other schools in the system were reluctant to participate in the exchange programs; consequently, few exchange programs were realized. A more significant plan for dissemination in this area is discussed in Part III - PROJECTED ACTIVITIES.

(c) In order to give new staff members the opportunity to become orientated to the concept of innovation in curriculum, it was felt that some of the programs needed one year of operation before an exchange or visitation was effected.

3) Dissemination

In the proposal submitted for an operational grant, the specifics of the area of dissemination were not clearly defined; however, communication has been established between this component and other educational agencies. Methods for improving this area are discussed further in Part III - PROJECTED ACTIVITIES.

4) Budget Allocations

It is understandable that total budget grant is not known immediately, but it is hoped that notification of budgetary items would be soon enough for the project director and others concerned to determine which items need readjustments.

3. Report the effect of the project on the educational institution or agency by discussing what you consider to be the greatest change resulting from the project.

Realizing that continued evaluation is essential, the applicant agency submits what it believes to be the greatest changes to date resulting from the Project.

a. Project staff and professional personnel in all the schools in the Unit have displayed great interest and enthusiasm in being involved in innovative programs and in learning more about research techniques. This interest and enthusiasm is manifested by the numerous requests from personnel to get involved in this Project as well as other innovative programs.

b. Students, parents and teachers within this administrative unit are more receptive toward new ideas and experimentation with new programs.

c. Parents are more interested in new approaches to teaching and curriculum changes. For example, some parents are seeking more information regarding these new approaches, are volunteering to serve as guides for visitors, and are exhibiting a willingness to help by serving on school committees.

d. Principals and teachers from schools not included in the Experimental Unit are interested in securing copies of teaching units being developed on the secondary level.

e. Teachers are becoming more active in decision making, planning and evaluating what is to be taught as evidenced in their team planning sessions.

f. Curriculum directors have shown an increased interest in their areas of specialization and are very helpful in planning approaches for these areas.

g. Other schools in the system have begun to show interest in modifying their curriculum. A request has been made for assistance and advice in establishing a humanities approach for a local junior high block program.

h. Participation in the Experimental Model School Project has resulted in a fuller commitment of recognizing each student as an individual with the right to develop to his fullest potential.

4. Report the effect of the project on the co-operating agencies by (1) listing all the community agencies that co-operated in the project; (2) discussing the results of such co-operation; and (3) listing local educational agencies and counties which were served by the project and indicate any changes since the initial application.

   a. During the planning period and the eight months the project has been operational, the following community agencies have, and are cooperating with the project:

      Alcoholism Information Center and Charlotte Council on Alcoholism
      American Cancer Society
      American Association of University Women
      American Red Cross
      Baucoms' Nursery - (Nature Center)
      Business and Professional Women's Club
      Carolina Coach Lines
      Carolina Motor Club
      Carolina Nursery - (Nature Center)
      Central Charlotte Association
      Chamber of Commerce
      Charlotte Exchange Student Program and American Field Service
      Charlotte Merchandise Mart
      Charlotte-Mecklenburg County Health Department
      Charlotte Memorial Hospital
      Charlotte News
      Charlotte Observer
      Charlotte Opera Association
      Charlotte Oratorio Singers
      Charlotte Symphony Orchestra Association
      Charlotte Women's Club Writer's Forum
      Charlottetown Mall
      Community Concerts Incorporated
      Covenant Presbyterian Church
      Daughters of American Revolution
      Eastern Air Lines
      First Union National Bank

Study Commission of Governor Moore
International Reading Association (Local Chapter)
Mecklenburg Tuberculosis Association
Mint Museum of Art
Myers Park Presbyterian Church
North Carolina National Bank
Public Library of Charlotte and Mecklenburg County
United Arts Council

b. As a result of the cooperation of these agencies, the following effects are evidenced:

1) Recognition by colleges of the importance of early training of students going into teacher training as evidenced by a local Catholic and three out-of-city teacher training institutions sending groups of prospective teachers to observe the programs in operation at the experimental schools.

2) Changes in cooperating educational agencies evidenced by principals and teachers beginning to implement in their respective schools and classes innovative practices such as reorganization of curriculum patterns to provide for team teaching in some areas for next school term.

3) Cooperating agencies have more interest in education and more respect for the people who are operating the schools.

4) Enrichment of instructional experiences in classroom activities which have increased the breadth and depth of an experiencing curriculum.

5) Involvement of six sophomores from Sacred Heart College in the learning resource center as teacher "helpers" for three weeks -- one day per week.

c. In addition to serving the Charlotte-Mecklenburg School District, the following local and other educational agencies were served:

1) Educational Agencies

Sacred Heart College

Queens College

University of North Carolina at Charlotte

Central Piedmont Community College

Learning Academy of Charlotte-Mecklenburg, ESEA Title III, Project of the Charlotte-Mecklenburg School System

Mecklenburg Kindergarten Association

Bethlehem Center

Child Development Center # 1 and # 2, Charlotte-Mecklenburg Title I, Pre-School Centers

2) Other

Mr. William Jenkins, Director Early Childhood Education

N. C. Department of Instruction, University of North Carolina, Chapel Hill, N. C.

Exchange program with Meadowbrook Junior High School, Newton, Massachusetts (See Appendix B)

Proposed Workshop at Old Salem, Winston Salem, N. C. with humanities teachers from Albemarle Road Junior High and Mr. Nicholas Bragg, Director of Education and Interpretation at Old Salem (See Appendix B)

d. Those identifiable benefits derived from this cooperation are:

1) A teacher from Harding High School, Charlotte-Mecklenburg School System stated that as a result of observing the learning resource center she has placed in her literature classes students on independent study and also plans to continue the thematic approach as begun by our in-service teacher.

2) Teachers from schools within the system stated that they have been able to share some valuable new procedures and materials with their colleagues after their visits to the experimental schools.

3) State department representatives have visited the four experimental schools and have shown increased interest in the development of innovative curriculum patterns. During the summer of 1968, the Department of English of the North Carolina State Department of Public Instruction plans to revise its English curriculum for grades 1-12; hopefully, the materials and teaching techniques in the experimental schools will be reviewed at this time.

4) A college student stated that teaching seems to have come more alive for her after visiting the program and has applied for a teaching position in the Experimental Unit of the Charlotte-Mecklenburg System.

5) One principal is in the process of initiating a multi-age grouping for her school for the next school term.

6) Many visitors indicated a great need for disseminating materials to other schools in the system and in the area. Requests for units of work are received daily.

7) A study director for the Rutherfordton County Fine Arts Center stated that although their program would not be conducted in the same manner, she was very excited over the interdisciplinary humanities approach. She indicated a similar approach may be used for their Center in integrating the fine arts.

8) As a result of concentrated effort by the teachers in the Experimental Model Schools, a proposed workshop for teachers of humanities will be held in cooperation with the educational division of Old Salem in Winston Salem, North Carolina. This workshop was initiated by the humanities team at one of the experimental model schools and is open to all teachers of humanities in the Charlotte-Mecklenburg System. (See Appendix B)

9) A proposed teacher exchange program is underway between the junior high school of the Unit and a junior high school in Newton Centre, Massachusetts. (See Appendix B) This program, innovative in concept, has been of immeasurable value as teachers from two distinctly separate

geographical areas share and exchange ideas of educational practices.

10) First graders from one of the elementary feeder schools studied in the Nature Center and developed a creative unit on "Independence thru the Eyes of a First Grader."

5. Discuss how project information was disseminated. Include such information as (1) the number of unsolicited requests for information; (2) the number of visitors from outside the project area; and (3) the estimated costs of such dissemination.

The Experimental Model School Unit through a formal Dissemination Program, has exerted every effort to develop and execute exemplary information dissemination procedures.

Essentially, project information has been disseminated through formal presentations by staff members, utilization of educational television, newspaper articles, publications; and, informally, through conversation, by telephone, to small groups and through personal contacts.

Since the beginning of the 1967-68 operational grant, dissemination of information regarding the Experimental Model School Unit, both solicited and unsolicited, has been accomplished in a number of ways:

a. To date, we have received, logged and responded to in excess of one hundred (100) unsolicited informational requests concerning the Experimental Model School Unit.

b. Extensive coverage of project objectives and accomplishments have been afforded the general public through utilization of the local newspapers. A representative sampling of published news articles is included in Appendix C.

c. A video taped television presentation was prepared and disseminated by WTVI, an educational television station owned and operated by the Charlotte-Mecklenburg School System.

d. Newsletters and brochures have been prepared for dissemination. Copies of these have been mailed to interested people all over the country. (See Appendix B)

e. Presentations to educational, civic and other groups were delivered by the project staff during this period. The number of presentations to groups by respective category is as follows:

Charlotte-Mecklenburg Schools	37
Teacher Group Orientation (prior to visitation)	5
Non-Public School Administrators	2
Educational Study Committee of American Association of University Women	1
Early Childhood Education, Intermediate	2
Parent-Teacher Groups	5
Parent Groups	2
Chamber of Commerce	1
Charlotte Optimist Clubs	1
University of N. C. at Chapel Hill - (Taped television programs: Independent study with senior high students and humanities with junior high students.)	2
Local television station - (Appearance of one faculty member on teen program.)	1
North Carolina Kindergarten Association	5
Mecklenburg Kindergarten Association	5
Learning Academy, Charlotte-Mecklenburg Title III Project (Workshop involving humanities teachers from the junior high school in the unit.)	2

Home School Association of Non Public Schools	2
Principal's group from Non-Public Schools in Charlotte area	1
Charlotte-Mecklenburg Parent-Teacher Council	1
American Association of Secondary School Principals	2
State Meeting of Student Branch of NCEA, Raleigh, N. C.	1
John T. Haggard High School, Wilmington, N. C.	5
In-Service Department of Atlanta Public Schools, Atlanta, Georgia	6
Federation of Women's Clubs	1
N. C. Council of Women's Organizations	1
Alpha Delta Kappa Sorority for Women Educators	1
North Carolina Time Block Conference, Winston Salem, N. C.	1
Junior High Principal's Conference, Chapel Hill, N. C.	1

f. A permanent exhibition, namely an oversized wall display (bulletin board) has been designed and is in a prominent central office area. This display is continually up-dated with pertinent information concerning the project.

g. Groups and individual visitations to the Experimental Model School Unit are a common and well-planned-for happening in the day-by-day operation of the project. To insure a worthwhile experience the Dissemination Director coordinates this activity by maintaining visitor schedules, arranging accommodations, providing orientation and escort service as well as a descriptive literature package for each visitor. The number of visitors, classified by group, is as follows:

Non Public Schools	21
Out of State	53
Schools within the Charlotte-Mecklenburg System	69

Representatives from Governor's Commission to study Public Schools	30
Representatives from teacher training institutions	118
Out of System (N. C. Schools)	35
Representatives from State Department of Public Instruction	60
Parents	17
Foreign	2
Other	3

A sample copy of the Application for Visitation is provided in Appendix C.

h. The total cost of all dissemination activities has been approximately $1,000. This estimate includes expenditures for supplies, materials and publications associated with information dissemination. Staff salaries associated with dissemination are presented in the financial section of this proposal and are not reflected in the figure above.

6. Describe the methods and procedures being developed to carry the project forward without Federal support after the designated approval period.

Those programs which can be phased from Federal to local support over a reasonable period of time have been given top priority for inclusion in this proposal. Moreover, those experimental and exemplary programs which, through rigorous evaluation have proven worthy of dissemination to other schools in the Charlotte-Mecklenburg System, will be implemented in these schools with local support. It is to be noted that these programs may not be exact replications but will be modified to meet each individual situation.

In the future outside support will be sought from such places as the Richardson Foundation, Carnegie Institute, Ford Foundation and local service organizations.

7. List costs for budget period this narrative report covers:

$ 776,398.72 Total cost.

$ 141,274.00 Total non-Federal support. (See page II-118)

$ 535,262.00 Total Federal support under Title III, P.L. 89-10

$ 99,862.72 Total Federal support other than Title III, P.L. 89-10.
(See pages II-119 and II-120)

NON-FEDERAL SUPPORT
CHARLOTTE/MECKLENBURG SCHOOL SYSTEM
ABSORBED COSTS

Expense Class	Name & Title, Purpose, or Item	Project Time Part	Quantity	Salary, Rental or Unit Cost	Absorbed Costs
Salaries					
	Assistant Superintendent - Supplementary Programs	X 1/8	1 - 12 mos.(22 hrs. per mo.)	14,250.00 (per yr.)	$ 1,781.00
	Executive Staff	X	7 - 8 hrs. per mo. (96 hrs. per yr.)	12.00 (per hr.)	8,064.00
	Director of Auditing and Accounting	X	1 - 10 hrs. per mo. (120 hrs. per yr.)	7.25 (per hr.)	870.00
	Purchasing Department	X	20 hrs. per mo. (240 hrs. per yr.	7.25 (per hr.)	1,740.00
	Instructional Directors & Coordinators	X	30 - 8 hrs. per mo. (96 hrs. per yr.)	7.80 (per hr.)	22,464.00
	Teachers in Schools	X	128 - 8 hrs. per mo. (96 hrs. per yr.)	6.50 (per hr.)	79,872.00
	Principals in Schools - Elementary	X 1/5	2 - 11 mo.	23,000.00 (per yr.)	4,600.00
	- Secondary	X 1/5	2 - 11 mo.	25,750.00 (per yr.)	5,150.00
	Operations and Engineering - Supervision		1 - 8 hrs. per mo. (96 hrs. per yr.)	5.00 (per hr.)	480.00
				Sub-Total	$ 125,021.00
	Retirement, Social Security and Unemployment Compensation .13%				16,253.00
				Absorbed Costs	$ 141,274.00 *

*This figure does not reflect cost of housing the 50 project people, use of school facilities, office equipment and computer time.

TOTAL FEDERAL SUPPORT OTHER THAN
TITLE III, P. L. 89-10

National Defense Education Act - Title III

	Equipment and Material	Library	Total	Federal Support
Clear Creek Elem. School				
Local 1/2	$ 412.00	$ 180.00	$ 592.00	
Federal 1/2	412.00	180.00	592.00	$ 592.00
Devonshire Elem. School				
Local 1/2	1,288.00	283.00	1,571.00	
Federal 1/2	1,287.00	283.00	1,570.00	1,570.00
Albemarle Rd. Jr. H.S.				
Local 1/2	1,416.00	386.00	1,802.00	
Federal 1/2	1,416.00	386.00	1,802.00	1,802.00
Independence Sr. H.S.				
Local 1/2	1,803.00	515.00	2,318.00	
Federal 1/2	1,802.00	515.00	2,317.00	2,317.00
			Sub-Total	$ 6,281.00

National Defense Education Act - Title V
(Testing Program)

Albemarle Rd. Jr. H.S.	$ 150.00	
Independence Sr. H.S.	175.00	$ 325.00
	Sub-Total	$ 325.00

National School Lunch Program and Special School Milk Program

Clear Creek Elem. School		
Lunch Program	$2,009.10	
Milk Program	792.04	$ 2,801.14
Devonshire Elem. School		
Lunch Program	3,983.12	
Milk Program	792.04	4,775.16
Albemarle Rd. Jr. H.S.		
Lunch Program		2,588.51
Independence Sr. H.S.		
Lunch Program		2,619.91
	Sub-Total	$12,784.72

Elementary and Secondary Education Act - Title I

	Federal Support
Clear Creek Elementary School	$ 3,000.00
Albemarle Rd. Jr. H.S.	4,000.00
Independence Sr. H.S.	8,000.00
Sub-Total	$ 15,000.00

Elementary and Secondary Education Act - Title II

	Federal Support
Clear Creek Elementary School	385.00
Devonshire Elementary School	1,203.00
Albemarle Rd. Jr. H.S.	1,578.00
Independence Sr. H.S.	1,727.00
Sub-Total	$ 4,893.00

George-Barden Act, Smith Hughes Act and Vocational Act of 1963

	Total Salaries	Federal Support
Independence Sr. H.S. Vocational teachers		
11 - @ $846.00 per mo. - 10 mos.	$ 93,060.00	
1 - @ $846.00 per mo. - 11 mos.	9,306.00	
1 - @ $846.00 per mo. - 12 mos.	10,152.00	
Total	$ 112,518.00	
Retirement, Social Security Unemployment Compensation @ 13%	14,627.00	
	$ 127,145.00	
Federal Support - approximately 1/2 of 3/4 ($127,145.00)		47,679.00
Rental of Equipment - $8,000. per yr. 50% ($8,000.00)		4,000.00
Sub-Total		$ 51,679.00*

Neighborhood Youth Corp. - In-School

	Federal Support
Independence Sr. H.S.	
10 enrollees - 26 hrs. wk. - 12 wks.$1.25 (summer)	3,900.00
10 enrollees - 10 hrs. wk. - 40 wks.$1.25 (school yr.)	5,000.00
Sub-Total	$ 8,900.00

TOTAL FEDERAL SUPPORT OTHER THAN TITLE III, P. L. 89-10	$ 99,862.72

*Figure does not include purchase of Vocational Dept. equipment for Independence Sr. High School - (50% of $136,500.00).

PART III - PROJECTED ACTIVITIES

Charlotte-Mecklenburg School System
P. O. Box 149
Charlotte, North Carolina 28201
Grant No: OEG-3-7-703720-4882
Project No: 3720

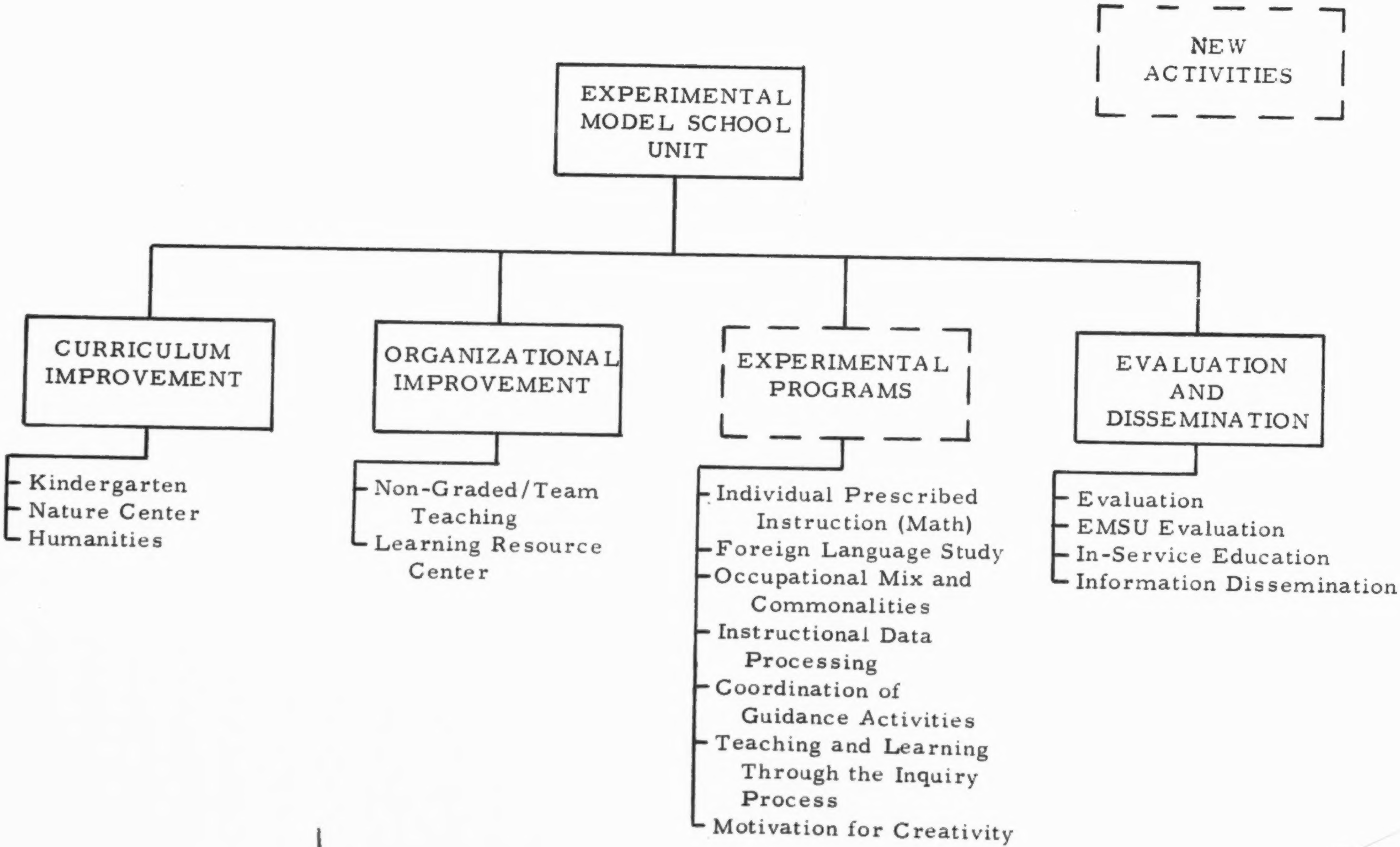
North Carolina Budget Period: July 1, 1968 to June 30, 1969

INTRODUCTION

Plans for the second operational grant of the Experimental Model School Unit include the addition of a new dimension to the scope of project effort. This new dimension introduces an "Experimental Program" strategy. From conception, the aim of the EMSU Project has been to introduce each year a number of new experimental programs in the participating schools; evaluate the programs; and at the conclusion of the designated funding period, continue the promising programs with local support.

A Summary Planning Breakdown Structure, page III-2, has been prepared to visually depict the now proposed project configuration. It serves to both identify EMSU strategies and classify the respective programs contained therein.

Essentially, program activities in three of these strategies parallel one another in their operation with proper provision included for mutual program interaction, while the fourth undergirds the other three. The first strategy embraces programs designed to upgrade and/or introduce improvements to curriculum content. The second is to provide methods or techniques permitting organizational improvements. The third is the newly added strategy concerned with Experimental Programs which serves to introduce new programs


NEW ACTIVITIES
EXPERIMENTAL MODEL SCHOOL UNIT
CURRICULUM IMPROVEMENT
Kindergarten
Nature Center
Humanities
ORGANIZATIONAL IMPROVEMENT
Non-Graded/Team Teaching
Learning Resource Center
EXPERIMENTAL PROGRAMS
Individual Prescribed Instruction (Math)
Foreign Language Study
Occupational Mix and Commonalities
Instructional Data Processing
Coordination of Guidance Activities
Teaching and Learning Through the Inquiry Process
Motivation for Creativity
EVALUATION AND DISSEMINATION
Evaluation
EMSU Evaluation
In-Service Education
Information Dissemination

SUMMARY PLANNING BREAKDOWN STRUCTURE-
EXPERIMENTAL MODEL SCHOOL UNIT

for experimentation and consideration. And fourth is the continuing, underlying strategy of Evaluation and Dissemination that supports all programs by assessing their impact and value and imparting information to this regard.

In total, the EMSU Project embraces sixteen (16) distinct programs for the 1968-69 project year. For the purpose of clarity and complete understanding on the part of the proposal reader/evaluator, projected activities for the 1968-69 grant period will be addressed herein on a program-by-program basis.

Furthermore, in acknowledgement of the planning activities delineated in Part II, 1(b) concerning program accomplishment for 1967-68, it must be pointed out that the original timetable has required certain alteration. The unavailability of qualified program personnel and/or lack of budgetary means has dictated a reprogramming of planned activities for certain programs into the 1968-69 project year.

CURRICULUM IMPROVEMENT

KINDERGARTEN PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

No change. The projected activities for the continued operation of this program do not reflect any additional needs.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives to be achieved during the continued operation of this program are as originally stated in the proposal submitted for an operational grant for the 1967-68 budget period.

3. State in sequence the activities to be carried out in achieving these objectives.

The projected activities for the 1968-69 budget period provide for the continuation, in greater depth, of those program activities originally stated in our 1967-68 budget period proposal.

Additional facility and personnel requirements are requested in support of this program. Facility requests include the construction of a paved area for outside activities, a storage room for equipment, water fountain, lavatory, audio-monitoring system, supplies and games for the instructional program. Personnel requests include the necessary funds to permit the kindergarten teacher and her aide an additional sixteen (16) day planning period prior to the initiation of the teacher's school year.

4. Describe the method and procedures for evaluating these objectives.

The methods and procedures for evaluating the objectives of this program are delineated in our 1967-68 budget period proposal and further discussed in Part II, 1.(a) of this submission.

NATURE CENTER PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

No change. The projected activities for the continued operation of this program do not reflect any additional educational needs.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives to be achieved during the continued operation of this program are as originally stated in the proposal submitted for an operational grant for the 1967-68 budget period.

3. State in sequence the activities to be carried out in achieving these objectives.

Planning is already underway to integrate the existing nature center activities with the science curriculum. A site within the Natural Educational Zone has been selected and surveyed for the construction of a pond and a coordinator has been tentatively selected to direct the program. Upon approval of this submission for a continuation grant, the activities delineated below will be initiated.

Summer - 1968

a. Immediately employ the Nature Center coordinator and custodian and expand the Natural Educational Zone through the purchase of additional land adjacent to the existing facility. (Requirement statement in Audubon Society Report and letter of willingness to sell land are included in Appendix D.)

b. Formulate specific plans for integrating current Nature Center activities with science courses. This planning process will continue throughout the project year.

c. Construct a pond, an outside office, lavatory facilities, and a storage area in the Natural Educational Zone in time for utilization in the planned program activities during the regular school year.

d. Purchase the necessary equipment and materials for the operation and maintenance of the pond and the Natural Educational Zone.

School Year - 1968-69

Projected activities provide for a more-in-depth continuation and, in certain instances, the initiation of those program activities originally stated in our 1967-68 budget period proposal.

4. Describe the method and procedures for evaluating these objectives.

The methods and procedures for evaluating the objectives of this program are delineated in our 1967-68 budget period proposal and further discussed in Part II, 1.(a) of this submission.

HUMANITIES PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

No change. The projected activities for the continued operation of this program do not reflect any additional educational needs.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives to be achieved during the continued operation of this program are as originally stated in the proposal submitted for an operational grant for the 1967-68 budget period.

3. State in sequence the activities to be carried out in achieving these objectives.

The projected activities for the 1968-69 budget period provide for the continuation, in greater depth, of those program activities originally stated in our 1967-68 budget period proposal.

In order to provide for greatly increased student participation at the high school level, modular scheduling will be implemented. This new scheduling system, coupled with team teaching, will provide a better opportunity for a flexible and interdisciplinary approach to divergent patterns of instruction. Greater depth planned for the continuation of this program plus an increased student census will require additional personnel and additional equipment and materials.

Approval of this submission for a continued operational grant will permit the following:

a. During the initial stages of the second project year the following additional personnel will be selected and employed.

Junior High Level -
  1 Team leader (1/10 supplement of salary)
  3 Staff writers (two months each in summer)
  2 Full-time staff members to relieve team leaders
    planning (ten months each)
  1 Teacher aide (ten months)
  1 Position for art teacher (ten months)
  1 Position for music teacher (ten months)
  2 Teacher aides (sixteen additional days each)

Senior High Level -
  2 Teacher aides (ten months each)

b. Conduct in-service training activities in summer months and during the regular school year for the purpose of orienting new and experienced personnel to new scheduling and instructional procedures.

4. Describe the method and procedures for evaluating these objectives.

The methods and procedures for evaluating the objectives of this program are delineated in our 1967-68 budget period proposal and further discussed in Part II, 1.(a) of this submission.

In addition, special effort will be directed toward evaluating modular scheduling and the interdisciplinary and team teaching approach to instruction.

ORGANIZATIONAL IMPROVEMENT

NON-GRADED/TEAM TEACHING PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

No change. The projected activities for the continued operation of this program do not reflect any additional educational needs.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives to be achieved during the continued operation of this program are as originally stated in the proposal submitted for an operational grant for the 1967-68 budget period.

3. State in sequence the activities to be carried out in achieving these objectives.

The projected activities for the 1968-69 budget period provide for the continuation, in greater depth, of those program activities originally stated in our 1967-68 budget period proposal.

The increased depth planned for the projected activities, referenced above, plus consideration for general program improvements require the employment and training of additional personnel.

Approval of this submission for a continued operational grant will permit the following:

a. Select and employ during the initial stages of the second project year the following additional personnel and provide additional planning days for existing project staff.

Elementary Level -
- 1 music teacher (ten months)
- 6 team leaders (sixteen additional days each)
- 6 teacher aides (sixteen additional days each)

Junior High Level -
- 1 team leader (1/10 supplement of salary)
- 1 teacher aide (ten months)
- 2 staff writers (two months each in summer)
- 2 teacher aides (sixteen additional days each)

Senior High Level -
- 4 team leaders (1/10 supplement of salary each)
- 7 team leaders (sixteen additional days each)

b. Provide in-service activities for both new and experienced personnel.

4. Describe the method and procedures for evaluating these objectives.

The methods and procedures for evaluating the objectives of this program are delineated in our 1967-68 budget period proposal and further discussed in Part II, 1.(a) of this submission.

Also, parents, students and teachers will be requested to give their subjective evaluations of this organizational improvement. Since this particular phase of the Experimental Model School Program affects so many children and parents, a special effort will be made to involve these two groups.

LEARNING RESOURCE CENTER PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

No change. The projected activities for the continued operation of this program do not reflect any additional educational needs.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives to be achieved during the continued operation of this program are as originally stated in the proposal submitted for an operational grant for the 1967-68 budget period.

3. State in sequence the activities to be carried out in achieving these objectives.

The projected activities for the 1968-69 budget period provide for the continuation, in greater depth, of those program activities originally stated in our 1967-68 budget period proposal.

Additional personnel will be required to implement the more-in-depth activities projected for this program, as follows:

Elementary Level -
  1 team leader (1/10 supplement of salary)
  2 teachers (sixteen additional days each)
  1 teacher aide (ten months)
  1 team leader (sixteen additional days)
  1 librarian (ten months)
  1 audio-visual specialist (sixteen additional days)
  1 audio-visual technician (sixteen additional days)

Junior High Level -
  1 team leader (1/10 supplement of salary)
  2 teachers (sixteen additional days each)
  1 teacher aide (ten months)
  1 team leader (sixteen additional days)
  1 librarian (ten months)
  1 audio-visual specialist (sixteen additional days)
  1 audio-visual technician (sixteen additional days)

Senior High Level -
  1 team leader (1/10 supplement of salary)
  2 teachers (sixteen additional days each)
  1 program material specialist (ten months)
  1 music specialist (ten months)

1 teacher aide (ten months)
1 team leader (sixteen additional days)
1 librarian (ten months)
1 audio-visual specialist (fifty-five additional days)

4. Describe the method and procedures for evaluating these objectives.

The methods and procedures for evaluating the objectives of this program are delineated in our 1967-68 budget period proposal and further discussed in Part II, 1.(a) of this submission.

In addition to the above referenced evaluation procedures, the following will be applied:

a. The post test of the Sematic Differential will be administered to students and teachers for the purpose of measuring changes in opinions about the program.

b. Students who are involved in unique programs (i.e., individualized instruction) will be identified and their progress will be compared with students from control groups. Data from the regular testing program as well as additional information will be used for this purpose.

c. Students and teachers will be requested to provide their subjective appraisals of various phases of the program, especially the activities which have recently been introduced.

EXPERIMENTAL PROGRAMS

INDIVIDUAL PRESCRIBED INSTRUCTION PROGRAM (MATHEMATICS)

1. Describe the additional educational needs to be met with the proposed program.

One of the long-range objectives of education in the Charlotte-Mecklenburg Schools is to provide instruction which is consistent with the needs of the individual student. In order to accomplish this goal, many attitudes, habits, and concepts of educators must be altered. For example, the administrator and his staff must be willing to abandon the traditional educational practices which force instruction into the time-bound units of a semester or a class period, or into classroom-bound units of group progress. As a substitute for the group oriented instruction, the administrator and his staff should apply a systematic program of individual learning.

Pupil assessment, appropriate instructional methods, appropriate instructional materials and equipment, and continuous evaluation are essential components of an individualized system. Each student's potential and progress in a particular subject area needs to be determined so that appropriate decisions can be made continuously about these unique needs. Once the student's progress is assessed, the instructional steps required for his further development can be determined and appropriate materials made available. Continuous evaluation provides the necessary information for determining the effectiveness of the assessment procedures, the instruction, and the materials and equipment.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

The objectives of the Individually Prescribed Instruction Program are as follows:

a. To restate the elementary school mathematics curriculum in terms of a continuum of specific behavioral objectives for the purpose of monitoring and assessing the progressive development of each child's competency in subject-matter areas.

b. To provide a variety of mathematical materials and techniques of instruction to meet the individual needs of students.

c. To establish teacher functions and procedures to facilitate individually prescribed instruction.

d. To develop a school structure and organization that permits the flexibility required for individualized learning.

e. To integrate the activities in the Individually Prescribed Instruction Program with other activities in the Experimental Model School Unit and the entire school system.

3. State in sequence the activities to be carried out in achieving these objectives.

The Individually Prescribed Instruction Program's materials and procedures were developed by the Research and Development Center at the University of Pittsburgh, one of the first centers of this kind established by the U.S. Office of Education. Subsequent to developing the materials, Research for Better Schools (Regional Educational Laboratory - REL) in Philadelphia was assigned the responsibility of evaluating the progress, disseminating information and training new personnel in the techniques of the Individually Prescribed Instruction Program.

Participation in any phase of the IPI is limited to schools which are ultimately approved by the REL in Philadelphia; but the Regional Educational Laboratory in Durham, North Carolina, is responsible for nominating schools in North Carolina. At the time of the writing of this project, the director of the Experimental Model School Unit has made a formal application to the REL in Philadelphia and Durham for participation during the next school year.

Briefly, the steps of the Individually Prescribed Instruction Program to be operated in the Experimental Model School Program are as follows:

a. At the beginning of the school year, placement tests are administered to determine proficiency and weaknesses within each curricula area. Since mathematics is the subject to be employed in the Experimental Model School Program, the mathematics test from the battery of the Iowa Test of Basic Skills will be utilized as the primary assessment tool; however, a number of other measurements will be available through the unit's basic testing program.

b. Pretests, curriculum-embedded tests, and post-tests are also administered to measure the student's knowledge prior to, during, and at the end of an instructional unit.

c. Using information from these tests, the teacher prescribes instructional sequences specific to each student's needs. A teacher's prescription may include tutoring and group activities, as well as self-study materials for each student. When instructing students, the teacher will use procedures and materials specifically developed for this program by the Learning Research and Development Center at the University of Pittsburgh. Other materials may also be used.

d. At intervals during the school year and at the end of the year, evaluations will be conducted for the purpose of measuring pupil and teacher progress as well as determining the effectiveness of the new materials and procedures.

e. Prior to the initiation of this new program in a selected elementary school in the Experimental Model School Unit, specific preparation steps will be taken as follows:

    1) Obtain final approval for participation in the mathematics program of the Individually Prescribed Instruction Program.

    2) Provide twenty-one (21) days of training this spring for two key staff members at the Regional Educational Laboratory in Philadelphia.

    3) Provide seventy-five (75) hours of in-service training for thirteen (13) teachers during the summer months.

    4) Employ two floating teachers and four (4) teacher aides. These personnel are required for participation in the project and are to be used primarily for releasing the

regular teachers for planning and in-service training activities.

5) Employ a coordinator for planning, promoting, and implementing the Individually Prescribed Instruction Program and other experimental programs which will be introduced at a selected elementary school in the Experimental Model School Unit.

6) Purchase necessary materials and equipment prescribed for the program including basic instructional materials for each child, small instructional equipment, tape recorders, record players and supplies.

7) Purchase necessary evaluation materials and provide for the expenses associated with the processing of these evaluation materials.

4. Describe the method and procedures for evaluating these objectives.

The evaluation of the Individually Prescribed Instruction Program will be directed toward determining how well the operating program satisfies the stated objectives. Specifically, data will be collected and analyzed to ascertain whether:

a. The program activities resulted in improved performance in mathematics on the part of the students.

b. The variety of materials and instructional techniques met the individual needs of students.

c. Teacher functions and procedures facilitated invididually prescribed instruction.

d. The principal and the Experimental Model School Unit staff developed the structure and organization that permitted the flexibility required for individualized learning.

e. The activities of the Individually Prescribed Instruction Program were effectively integrated with other programs in operating the Experimental Model School Program.

The appraisal of student progress will be made through the use of the mathematics tests included in the Iowa Basic Skills Battery, the tests administered as a part of the IPI program and the regular Experimental Model School Unit testing and evaluation procedures, and subjective evaluations conducted by teachers. Progress of students involved in this experimental program will be compared with a similar group of students who are chosen randomly from the Charlotte-Mecklenburg School System.

Other phases of the program -- materials and equipment, teaching procedures, school structure and organization, and the integration of activities -- will be evaluated by obtaining subjective evaluations from pupils, teachers, and visiting evaluation teams. The Semantic Differential Test, the instrument employed in obtaining baseline and evaluative data in other Experimental Model School Programs, will be administered to pupils and teachers participating in this particular project. By the same token, forms previously developed for the evaluation teams will be used by the visiting appraisers.

FOREIGN LANGUAGE STUDY PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

Foreign language is frequently one of the most difficult subjects for which students secure an adequate preparation. Even when one acquires a sufficient grammatical knowledge and a sufficient reading knowledge, he is often not familiar with the spoken language. As a result of the increasingly felt need for a better preparation in the areas of reading and writing and for more emphasis upon the spoken language, this program is proposed. The basic program of teaching a foreign language will continue to be supported by the Charlotte-Mecklenburg School System. Additional funds are being requested to add new and significant dimensions to the foreign language curricula by providing a summer camp experience for those students seeking an enriched foreign language experience.

The proposed program in foreign language is consistent with the overall philosophy and goals of the Experimental Model School Project in the following ways:

a. It provides for individual differences and recognizes each individual to be unique and of personal worth.

b. It stimulates reflective thinking by purposeful activities to utilize fully the resources of the mind.

c. It fosters the development of creativity by stimulating students, by uncovering hidden talents and by respecting the originality and individuality of the student.

d. It fosters an appreciation of culture through the knowledge of the worthy accomplishments of men throughout history in order to illuminate our way of life.

e. It affords the opportunity to come in contact with great ideas and provides opportunities for instruction and practice in critical thinking.

f. It develops the fundamental skills of listening, speaking, reading and writing with an emphasis upon the art of communication and the development of aesthetic sensitivity.

g. It regards moral and ethical values as rules by which men live together and by which they develop a society disregarding the barriers of race, religion and nationality.

h. It provides for better adjustment to family life by the use of foreign culture to improve appreciation of the home and cooperation with others

i. It establishes a more effective citizenship which implies the need for tolerance and social justice and the development of a genuine social conscience. Effective citizenship demands not only an allegiance to democracy, but also basic application of democratic principles to all phases of life.

j. It provides for a more genuine education to develop personality which should radiate zest and yearning for truth.

k. It helps identify and develop interests and teaches a worthy use of leisure time and a desire for cultural activities which raise one's level of understanding and sensitivity.

l. It helps to establish peace among men and nations.

m. It aims at and contributes to the perpetual renaissance of man by increasing international communication.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives of the Foreign Language Study Program, classified herein as "overall" and "specific", are as follows:

a. Overall Program Objectives:

    1) To increase the participants' audio-lingual proficiency --an objective which is basic to the whole language program.

    2) To give the participants a more thorough knowledge and a deeper appreciation of the general culture of foreign people.

    3) To acquaint participants with the linguistic principles of the foreign language--thus aiding self-improvement.

    4) To improve the participants' abilities to write a foreign language correctly using a variety of situations where composition may be profitable, such as personal or business letters, essays, anecdotes and the like.

5) To help the participants improve their reading skill in pronunciation, intonation, comprehension and in critical evaluation of material read.

6) To increase greater competency in the oral use of the language.

7) To provide an additional incentive for future academic study.

8) To aid in building international amity.

b. Specific Program Objectives:

As a result of the Foreign Language Study Program, the learner according to his own ability should be able to:

1) Comprehend a foreign language when spoken at normal speed on a subject within the range of his experience.

2) Communicate well enough with a native speaker at normal speed with a command of vocabulary and syntax sufficient to express his thoughts on a subject within the range of his experience.

3) Read with immediate understanding prose and verse of average difficulty and mature content.

4) Write, using authentic patterns of the language, a composition with clarity and correctness in vocabulary, idiom and syntax.

5) Recognize the linguistic concepts of sound, form and structure and apply this understanding through the use of the new functional system.

6) Discuss the contemporary values and behavior patterns of the foreign culture.

7) Compare the geographic, economic, political and cultural features of the foreign country with one's own country.

3. State in sequence the activities to be carried out in achieving these objectives.

The implementation of the Foreign Language Study Program will be accomplished by providing a foreign language summer camp whose program will be planned during the summer of 1968 for implementation during the summer of 1969. Under the direction of a foreign language coordinator, foreign language staff members will join with foreign students and others who speak a language fluently in providing unique language experiences to selected students at the ninth grade level.

a. The Present Program:

The present programs in foreign languages which are being conducted during the regular academic school year include the following sequence of learning experiences:

Level I

1) Listening (a) to basic sentences, dialogues, drills, stories, poems and songs; (b) to authentic models on tapes and records, as well as, to teacher presentation.

2) Speaking (a) dialogues for imitation and memorization, (b) question and answer drills adapting the dialogues to different persons and situations, (c) listening and repeating exercises, simple pattern drills, games and songs, (d) in choral groups, (e) with correct pronunciation, intonation and phrasing from authentic models, (f) simple dramatizations involving recombinations of phrases and dialogues memorized.

3) Reading (a) known material with approximately one semester of aural-oral practice preceding reading of the same material, (b) choral reading of dialogues, poems and narrative selections, (c) home assignments on materials already learned, (d) simple material not practiced audio-linqually, for comprehension without translation (the use of a simplified all-foreign language dictionary as an aid in reading.)

4) Writing (a) materials that have been heard, said and read, (b) structural substitution (changes of objectives, person and number, substitution of pronouns for nouns, etc.) (c) dictation of materials that have been learned.

Level II

1) Listening (a) to dialogues, drills, stories, poems and songs, (b) to authentic models on tapes and records and teacher presentation.

2) Speaking (a) dialogues and pattern drills, (b) narrative selections presented on tape and practiced orally, (c) controlled conversational practice between students, (d) short sentences about pictures, (e) correct pronunciation, intonation and phrasing from authentic models.

3) Reading (a) for phrasing, punctuation, speed and comprehension, (b) dialogues, poems and narrative selections as a choral group, (c) selected new material for comprehension without translation, (d) foreign language magazines and newspapers (use of a simplified all-foreign language dictionary as an aid in reading.

4) Writing (a) known materials at home as preparation for dictation, (b) dictated materials that have been studied, (c) adaptation of dialogues and other known materials.

b. Changes in Present Program:

With the exception of using foreign students and others who can speak foreign language fluently, the emphasis of the language program in the experimental school will be quite similar to that conducted during the regular school year.

c. The Summer Camp Foreign Language Study Program:

A summer camp will be held at one of the schools as part of the Experimental Model School Unit Project and will be open to rising tenth grade students from the junior high school in the Experimental Model School Program.

Eligibility for the summer camp school would include junior high school students:

1) Who have passed Level I but who do not have a strong enough background to move into Level II.

2) Who have passed Level I and who can move ahead into Level II.

3) Who have passed Level II but who need continued practice before advancing to Level III.

The participants of the summer camp will have four hours of classes each day for seven weeks. Areas of study will include culture and civilization, conversation, writing, pronunciation, pattern practice and informal activities. As far as possible all classes will be conducted in the foreign language under the leadership of instructors who can speak a particular language fluently.

The class size will be from ten to twelve students per class except lab practice, lectures, or other large group activities. Classes will vary in length. Some classes will last 40 minutes. Most active-participation classes will last thirty-five minutes--such as classes in pronunciation, writing and language pattern practice. Participants will be grouped together in sections according to level of achievement.

The following classes are planned:

1) Culture and civilization. A survey will be given of the geography, history, culture, literature, arts, music, commerce, industry, economy, education, political situations and government of the country. Although some attention will be paid to the historical phase, more attention will be given to contemporary matters with emphasis on the present.

2) Conversation. Participants will be divided according to oral proficiency into conversation groups. After the conversation ability of the participants has been determined, the material used will depend on what the group is able to do. Each week the conversation leaders will be rotated. A plan of conversation will be followed each week by all groups. The foreign language will be spoken in classes and at all other times whenever possible. The conversation classes will help to improve the general competence of the participants in the use of the foreign language.

3) Writing. Composition, dictation and writing exercises will be directed towards specific points of grammar. Writing business or personal letters, description of pictures, news events of the day and essays will be a part of the work. Each student will write on his own level.

4) Pronunciation. Classwork will deal largely with accurate production of foreign sounds and intonation patterns and practice in class. All classes will be trying to attain better pronunciation and comprehension, but this class will be directed more towards accuracy of sound production and intonation, whereas the conversation and pattern practice classes will be more concerned with fluency.

5) Pattern practice. This class will be an intensive course in language practice, with emphasis on pattern drills--the problems of syntax and vocabulary. Individual and group practice will be possible through constant oral drills.

6) Informal activities. Time will be devoted to more informal activities such as group singing or dancing at which time students will learn or practice foreign dances and songs.

In addition to the above classes, released time will be set aside for each individual to work independently--to receive special help in any areas of difficulty or to practice in the language laboratory.

d. Special Needs for the Foreign Language Study Program:

A foreign language coordinator and a secretary are needed during the summer of 1968 to plan in detail for the implementation of the program during the summer of 1969. Funds will be needed from which additional instructional supplies, supplementary books, tapes, filmstrips may be secured and evaluated in preparation for the summer program.

The Charlotte-Mecklenburg School System will be responsible for providing the facilities for the summer camp program.

4. Describe the method and procedures for evaluating these objectives.

The evaluation of the effectiveness of the Foreign Language Study Program is contingent upon the degree to which the specific behavioral objectives are met.

The success of the specific behavioral objectives will be measured by tests designed to answer the following:

a. Can the student comprehend, communicate, read, write and recognize the linguistic sounds of a foreign language?

b. Is the student able to discuss the culture of a foreign country?

In cooperation with social studies teachers, instruments will also be devised to measure the student's understanding of values and behavioral patterns in foreign cultures.

Can the student compare the geographic, economic, political and cultural features of the foreign country and his own?

Applicable tests will be designed with the cooperation of teachers in these areas.

In both programs, pretests will be administered and gain scores determined. Gain scores from the summer camp (when in operation) will be compared with gain scores from the regular program in an effort to estimate the gain made by the two new programs.

Where parental assistance will be required to make the program a success, pre and post measures (questionnaires) will be sent to the parents to estimate the students' enthusiasm for the foreign language program.

These data are needed to provide evidence for continuous revision of the program. Evidence is needed to determine how well the program is doing as it presently is operating to justify the expenditure to our supporting agency, and to convince teachers and administrators in the system that participation will be beneficial. Information also is needed which will help other systems to make decisions on whether or not to involve themselves in similar undertakings.

OCCUPATIONAL MIX AND COMMONALITIES PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

Present studies and surveys made in North Carolina by "State School Facts" have shown that for every 10 students in the state who entered high school, only six were graduated. Of these, three went on to college and three went directly to work; consequently, we need to offer vocational training to seven out of these ten students. In Mecklenburg County the applicant agency conducted a survey which showed that of every ten students who entered high school, only 7.5 were graduated. Of these, 4.7 went on to college, while 2.7 entered the labor force. While the survey showed the local situation slightly better than the state average, in the Charlotte area, vocational training is needed by 5.2 out of every ten students who enter high school.

Not only is there an urgency for a greater number of and more diversified vocational training programs to meet the requirements of the large group entering the world of work, but equally - to upgrade and make more attractive the vocational education offered in this geographic area.

Many students, and particularly in the cooperative classes, need to obtain extra specific occupational information beyond that which is offered in their particular class. They need to be able to cross curriculum boundaries within the enlarged framework of the complete vocational department.

The need for providing additional general information beyond the specific skills which are taught in each vocational curriculum has been pointed out many times by businesses and industry. Their adverse criticisms have emphasized the fact that most vocational high school graduates have little or no understanding of the economy system under which our nation operates.

This lack of understanding poorly equips the student to advance to jobs involving responsibility and leadership.

Technology is generating profound changes in the nature of work - changes which require that schools adjust their curricula to cope with these changes. This necessitates much re-learning as well as learning on the part of the student. Much up-to-date information will be needed for the student to keep pace with change, as well as to enrich his classroom work. Developing the ability to do research - gather data, evaluate data and solve problems will aid the student in re-learning. This skill is crucial as jobs and job requirements continue to change. It is a skill that will be needed long after the student's high school days are over. The schools must acknowledge these changes and realize their responsibility to continually upgrade their courses.

A knowledge of instructional data processing will help the proposed vocational education program provide students with fundamental skills and knowledge necessary to better equip future workers for the inevitable changes and influence of automation.

Early recognition of the above documented needs motivated the Charlotte-Mecklenburg Schools to introduce a very limited pre-pilot program during the 1967-68 school year. Funds applied to its operation were obtained through the Division of Vocational Education, North Carolina Department of Public Instruction.

Results of the pre-pilot feasibility investigation proved the validity of research findings in this area. Consequently, the Experimental Model School Unit proposes to institute a greatly expanded Pilot Program for the ensuing school year.

It must be understood that the major source of funds for our projected program will be supplied from the Division of Vocational Education, N. C. Department of Public Instruction. The portion of Title III funds sought will be applied to the additional expense associated with the purchasing of materials and the employment of in-service teachers, and a vocational teacher for the learning resource center.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

The Occupational Mix and Commonalities Program is designed to meet the individual needs of vocational students at the senior high level by incorporating various elements of educational procedures commonly labeled as flexible scheduling, individualized instruction, independent study, team teaching, core courses, remedial instruction, and vocational counseling. Flexible scheduling allows the student the freedom of movement needed for participation in activities which will benefit him most; counseling is provided to assist him in choosing appropriate learning experiences and opportunities through individualized instruction, independent study, team teaching, core courses, and remedial instruction provide him with a variety of instructional opportunities. During a given day, therefore, a student could receive vocational and educational counseling; attend a course not on his regular schedule for obtaining a special skill; be involved in individualized, independent, or remedial activities; and receive instruction from a team of instructors with a group of students who have common needs.

In order to aid students in making wise vocational selections which are inherent to success and job satisfaction, more intense vocational counseling is imperative.

Since most vocational teachers are not knowledgeable in team teaching procedures, workshops and in-service training are vital to this (team teaching) phase of the proposed program.

Objectives of the Occupational Mix and Commonalities Program, classified herein as "overall" and "specific", are as follows:

a. Overall Program Objectives:

1) To develop a more flexible vocational curriculum which enables students to receive instruction in other vocational areas related to his major field of interest.

2) To use team teaching in providing more effective instruction in areas which are common to all vocational fields.

3) To increase teacher efficiency by team teaching areas which are common to several vocational areas. (There are no comparison groups for this objective).

4) To provide more vocational guidance especially in selecting instructional units in other related vocational areas.*

5) To provide students opportunities to explore resource materials related to occupational education and/or remedial resource materials in basic education in a learning resource center.*

b. Specific Program Objectives:

1) To allow students to substitute instructional units in other vocational areas for units in their regular vocational course. For example:

   (a) The cosmetology student, whose career objective is beauty shop owner, would need some knowledge of elementary bookkeeping. He would be assigned to the bookkeeping class until he learned the correct procedure for setting up a set of books for a small business operation (i.e., open, maintain, and close books).

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*There are no comparison groups for this objective.

(b) The student whose vocational objective is a service station owner, would need salesmanship, business organization, and advertising. This information he would obtain in his distributive education class. He would also need some understanding of auto mechanics. He would work in the auto mechanics shop and I.C.T. until he mastered the recognition of and identification of the parts of the chassis, power units, electrical units, lubrication units, and certain points of inspection as required for a N.C. inspection station--lights, brakes, and other safety items.

(c) A distributive education student might find that very elementary typing was needed for his job. He would then work in the typing class until he mastered the fundamentals of the machine and a minimum speed of 25 words per minute.

(d) Some graphic art students must also be able to operate copying machines that are commonly found in business firms. These machines are fluid duplicator, mimeoscope, and heat process copier.

The student would learn these operations in the business education department.

(e) A student in industrial cooperative training, whose career objective is printing, needs instruction in offset photography and offset press. This information he would obtain in the graphics class.

(f) Data processing students need some expert training in basic electricity-impulses, switches and relay circuits. This information they would secure from the electronics class.

(g) Students in the business courses - typing, shorthand, bookkeeping, office machines - need instructions in proper grooming for office jobs. This instruction would be obtained from the home economics and cosmetology classes.

(h) Many students in the vocational department may find it necessary to learn some phase of data processing and computer programming. These students would then be programmed into the computer course for this instruction on the computer tie-in unit in the class room. Other students would have the opportunity to do independent study with the computer tie-in unit in the learning resource center.

2) To provide instruction in areas common to all vocational fields through team-teaching. Content of commonality areas is as follows:

   - (a) Job sources
   - (b) Job interview
   - (c) Labor laws-and young workers
   - (d) Taxes - and young workers
   - (e) Written communications:
     - (1) Letter of application
     - (2) Personal data sheet
   - (f) Economics - with emphasis on:
     - (1) Free enterprise system
     - (2) Competition
     - (3) Kinds of ownership
     - (4) Supply and demand
     - (5) The profit motive
     - (6) Budgeting
     - (7) Credit
   - (g) Personality and vocational success
   - (h) Human relations
   - (i) Attitudes and vocational success

3. State in sequence the activities to be carried out in achieving these objectives.

To afford the proposal reader/evaluator a complete understanding of the program and its projected activities, it is first necessary to acquaint him with the detailed planning effort associated with the pre-pilot program. Certain aspects of this planning are also applicable to the program proposed herein.

Planning:

In an attempt to source available documentation to assist program planning, a survey was performed. Many letters were sent to representative schools throughout the nation, the U. S. Office of Education and the North Carolina Research Coordinating Unit at the State University. Compilation of responses clearly indicated that no one had attempted the approach proposed herein. This proposed effort, if proven successful, will demonstrate a program that is both innovative and exemplary.

The general lack of information precipitated an extensive planning effort which included participation and/or commitment of representatives from varied resources.

Educational and business agencies which have or will participate are as follows:

a. The program was conceived and presented for approval by the Central Vocational Staff, Charlotte-Mecklenburg Schools.

b. The proposal was presented to the vocational staff and principal of Independence Senior High School, Charlotte, N. C., in the Spring of 1967.

c. The proposed program was presented to Mr. A. G. Bullard, Supervisor of Vocational Education, N. C. Department of Public Instruction, Raleigh, who agreed to work on the project with the local administration.

d. A coordinator, or chairman, was selected to help plan, as well as to coordinate, the department and be responsible for carrying out the project.

e. On June 12, 1967 a work-plan session was held with administration, central vocational staff, project coordinator, model school director, and principal of participating school.

f. On June 15, 1967, a conference was held by school administrators to do detailed work on objectives.

g. Local citizens have been contacted and have agreed to act as consultants in various phases of the program - particularly in the area of commonalities. The following is a representative listing of consultants:

    1) W. T. Harris, President, Harris-Teeter Super Markets and past president of the Chamber of Commerce.

    2) Thomas F. Braaten, Personnel Manager, J. B. Ivey Company.

3) Jos. M. Clark, Vice-President, Wachovia Bank and Trust Company.

4) Cecil M. Glover, Vice-President, City Chevrolet Company.

Teachers and other school personnel who have participated in planning for implementation of the proposed program are:

a. Central Vocational Staff formulated plans and made a request to the administration of the applicant agency for a workshop to be held the latter part of August, 1967. The purpose of the workshop was to orient the participating vocational faculty on various phases of the proposed program. (Workshop program attached.)

b. On June 8, 1967, Dr. Jack Blackburn, School of Education, University of North Carolina at Chapel Hill, and Mr. Joe Brooks, principal of Albemarle Junior High School, Charlotte, both of whom are knowledgeable in team teaching, were brought into a meeting to explain how to implement the team teaching phase of the proposed program.

c. On June 12, 1967, a conference was held with Dr. Hugh Peck,formerly with the Charlotte-Mecklenburg School System and now with The Richardson Foundation of Greensboro, N. C., for the purpose of getting advice on evaluation procedures.

d. Teachers and school personnel have participated in regular staff meetings as well as the two workshops - one in August and one in October, 1967, for planning and carrying out the proposed program.

Additional program planning activities include the following:

a. During the summer, 1967, the selected chairman-coordinator of the project made a trip to Pittsburg, Pa., for a conference with Dr. Louis J. Kishkuman, Assistant Superintendent of Occupational, Vocational, and Technical Education for information to aid in the planning of the proposed program.

b. Mr. A. G. Bullard, State Supervisor of Vocational Education of North Carolina, was instrumental in securing for us the services of two men in the state vocational department. Dr. Joe Clary and Dr. William J. Brown, Director and Assistant Director, respectively, of the Research Coordinating Unit in Occupational Education, North Carolina State University, Raleigh were called in as consultants in evaluation. Dr. Clary also served as an advisor on information, equipment, and materials for the learning resource center.

Projected Activities

The procedures and activities planned to meet the objectives of the Occupational Mix and Commonalities program are varied and interrelated, a fact which complicates describing the characteristics of this particular program. For this reason, then, each component of the program is discussed individually with reference to other components when applicable.

Central to the theme of this program, of course, is the concept of occupational mix and commonalities. As the term implies, occupational mix would provide an opportunity for students to cross curricular boundaries and participate in classes, work programs, or independent study which would best fulfill their individual needs. The voational coordinator, with the assistance of guidance personnel, would be responsible for assisting the students under his jurisdiction to choose and schedule appropriate learning activities regardless of where they are offered. A student might, for example, be assigned a field trip to explore industry, attend an economics class not on his schedule, or be given an individual research assignment in the vocational learning resource center.

The commonalities aspect of the program, on the other hand, would involve students in large instructional groups (from 40 to 120 pupils) for receiving information about and experiences in areas in which all share a common need for knowledge or competency. From necessity, the instructional period would vary in length; but because large numbers of students will be involved, the period will in most cases require an hour or longer. Students will be involved in a number of activities such as large group instruction, small group follow-up activities, role playing, and gaming. Instruction will be provided by the students, their vocational teachers, and resource people from the entire school system, local colleges, and industry. When applicable, the team approach will be utilized in providing the students with varied instruction and experience All types of audio-visual materials and equipment, including the wealth of aids in the learning resource center, would be available to the instructional staff.

All available resources (especially the guidance program, the teaching staff in the school system, and the learning resource center) will provide support to the aforementioned occupational mix and commonalities activities. The personnel in the guidance department will be able to provide invaluable assistance in testing, counseling, scheduling, and in assessing pupils' potentials, surveying learning opportunities, and scheduling pupils in order that they may realize maximum benefit from their school day.

Plans include the maximum utilization of teachers who are employed in all of the schools in the administrative unit.

They will be called on to assist in assessing student potential, interest, and needs as well as to make presentations, serve on special instructional teams, and provide remedial assistance.

The proposed vocational resource learning center to be contained in the existing learning resource center has the potential of making a very significant contribution to the vocational program in the Experimental Model School as well as the total school system. This center, to be directed by a newly employed vocational specialist, would provide space for housing all types of new audio-visual equipment and materials, appropriate books, and other printed information as well as a place for students and faculty members to do individual and group research.

Realizing the magnitude of implementing a program of such scope, plans include a comprehensive in-service training program which will involve staff members from the Experimental Model School Program as well as approximately 140 vocational teachers from other schools in the system. In order to help implement this endeavor, three additional vocational teachers will be employed to substitute for the regular teachers while they participate in in-service training activities.

Funds requested in this proposal for the Occupational Mix and Commonalities Program will provide for:

a. Vocational learning resource center materials for individual study and instruction.

b. Salaries for in-service vocational teachers for dissemination of information pertaining to the project.

   c. Salary for the vocational learning resource center teacher.

   d. Evaluation of program.

   e. Dissemination of findings (Printed materials included).

4. Describe the method and procedures for evaluating these objectives.

Evaluation of the proposed program has received a great deal of consideration and research. Accepted scientific research methods as proposed by, and in cooperation with, the Research Coordinating Unit of North Carolina State University have been accepted. A pilot program was instituted to determine the feasibility of controlled research. On a small scale, experimental and control groups have been set up by random assignment techniques in only five vocational areas: trade and industrial, business, home economics, distributive education, and agriculture.

The best standardized instruments known at this time were used in order to determine if they were able to measure the stated objectives. These tests were the _Stanford High School Technical Comprehension Test_, and the _Stanford Business and Economics Test_.

In addition to the standardized tests, achievement tests are being devised by the subject teacher for the occupational mix and by the lead teacher for the commonalities. These tests are being built under the direction of Dr. William J. Brown of the Research Coordinating Unit in Occupational Education.

Other evaluation procedures, methods, and techniques which will be employed are:

a. Administering the Semantic Differential test at the beginning and end of the school year.

b. Interviewing of top administration, vocational directors and supervisors by Dr. William J. Brown.

c. Interviewing of principal and teachers of participating school by Dr. Brown.

d. Analyzing the report of the Southern Association Evaluation Committee.

e. Rating by a citizens' committee from trade and industry, distribution, and business.

f. Following up students after graduation to determine employment and progress.

Because of the intense interest generated by the proposed program, the North Carolina Vocational Education Supervisor has provided two consultants who have worked on evaluation free of charge. The only cost for evaluation purposes would involve the cost of purchasing standardized evaluation instruments and the processing of collected data.

INSTRUCTIONAL DATA PROCESSING PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

Informed citizens of today are fully aware of the impact that the computer has had and will have on business, government, and society in general. According to a recent memorandum from the President of the United States, "the electronic computer is having a greater impact on what the government does and how it does it, than any other product of modern technology".[1] As of September 1967, an authoritative report estimated that there are fifty thousand programmers needed now to help write programs for the 35,000 computers already in operation. By 1970 it is predicted that 100,000 computers will be installed throughout the world, and more than 1,000,000 persons will be required -- including 100,000 programmers -- to program these computer systems.[2]

Statements, facts and figures like these obviously demand that a progressive educational system provide students with information about, and training in, computer service, not to mention the fact that educators should employ this technology in solving their own administrative and business problems.

A May 1963 article in School Management declared, "Your vocational program is obsolete unless you are preparing at least some of your students for careers in data processing."[3] Recent reports indicate that the usage of computers would create the need for more workers in the coming decade, and a practical solution is needed for the problem of educating students in the field of data processing.

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[1] "Computer and Automation" (September, 1967), pp. 2-3

[2] Ibid.

Available data, estimates the number of North Carolina workers presently employed in the area of data processing to be 7,500. It is currently anticipated that, by 1970, a minimum of 16,250 persons will be required to fill available positions in the data processing area. This represents an increase of 87,500 people in this field over a short period of four years.

In order to fulfill the anticipated needs, it behooves all educational institutions, whether they be private or public, to provide instruction in the various areas and levels of data processing and automation.

Some of the impressive statistics gathered by the Charlotte Chamber of Commerce in the spring of 1968 revealed that about 2,500 persons are directly involved with computers or computer imput in the Charlotte area.

To date only a limited number of area institutions offer data processing instruction. To satisfy the ever increasing need of local industry, our secondary schools must assume, to a greater degree, the responsibility to train people in data processing.

The Charlotte-Mecklenburg Schools have, each year, strived to upgrade and expand their capability to cope with this vocational training challenge. The planned data processing curriculum to be offered in each secondary school during the 1968-69 school year provides for a ½ year course in keypunch training and a full year course in Computer Operation and Programming Training. Each school will be provided with the necessary supplies and materials to support the program plus the equipment listed below:

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[3] "How to Teach Data Processing in Your Schools". School Management: VII (May, 1963), p. 77

1 IBM 1620 Computer
1 Card Sorter
6 Printed Card Punches

The above evidence certainly indicates that the school system is making every effort to develop and financially support a data processing curriculum designed to meet these ever growing needs. This endeavor has historically proven to be very costly. The administrative staff of the Experimental Model School Unit and the Charlotte-Mecklenburg School System believe that students are capable of doing more diversified and advance work than is possible with existing curricula offerings and available equipment.

Since the role of the Experimental Model School Unit is to experiment we propose to test this assumption.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

The objectives are:

a. To train students who will be technically qualified for employment in the field of electronic data processing.

b. To acquaint a large number of students with the problems, frustrations, and opportunities associated with automation and the computer age.

c. To introduce to business students the computer capability for order writing, billing, sales analysis, accounts receivable and inventory handling.

Example: EL Barisa Program

d. To make available to all students the use of the computer with simulated experiences.

Example: Super Market Management System

e. To teach to all students the computer capability in linear programming.

Example: PERT Application Route Accounting System

f. To teach the students how to operate a disc file and direct access file.

g. To teach students the highest computer language available in a Programming Language (APL) and the subset Student Language (SRA-1).

h. To teach students how to handle an operating system.

i. To provide for the Experimental Model School Units' administrative staff a tool by which they can better evaluate the experimental programs.

With confidence we state that we have only scratched the surface in describing the above objectives.

3. State in sequence the activities to be carried out in achieving these objectives.

Two programs will be offered to high school students participating in the experimental program. The first program will be keypunch training which will be offered as a one-semester course each semester. The prerequisites for this one-semester course (90 hours) will be a satisfactory score (as determined by the Vocational Data Processing staff), on an aptitude test and selection by the instructor. This course is separate and distinct from the one-year course of programming. The second course is a one-year course which will consist of the principles of data processing and computer programming. The computer programming course (180 hours) emphasizes computer concepts, programming, and business data processing problems. On the completion of the one-semester keypunch course, the student will be qualified to seek employment as a skillful keypunch operator. The computer programming training will qualify the student for programming in the Assembly and Fortran Programming Languages for the IBM 1130 Computer System. Additional programming, from necessity, will have to be provided by the students' employers. The program's aim is to provide the student with the basic fundamentals of data processing and the detailed programming training which is most applicable to industry and government as a whole. Attention is requested to the fact that the proposed courses are specifically directed at career training rather than applied mathematics, engineering, and scientific computer applications.

Keypunch Training:

a. Keypunch instruction will provide the student with a skillful knowledge of the IBM 029 Card Punch, the discipline of machine recording data applicable to any input device, and at the end of the course, enough training to qualify him as a skillful keypunch operator.

b. Those who are selected will be students who qualify on the IBM Card Operator Aptitude Test and who can type at least 30 words per minute.

c. The training program for students will be as follows:

   1) Prior to and in the early stages of the keypunch training, the students will be introduced to data processing with the help of the "Office Automation Practice Set", by Wanous (Southwest Publishing Company).

   2) Students will use the IBM Programmed Instructional Manual for the 026-029 card punch training.

   3) Students will have 80 hours of instruction on the IBM 029 Card Punch.

d. The instructors of the keypunch courses will be selected as follows:

   1) Qualify on the Card Punch Operator Aptitude Test

   2) Complete successfully the card punch training course outlined by the Charlotte IBM branch office. This course, from 2½ to 3 days duration, consists of following audio-tape instruction, using textual material, and completing practice exercises

   3) Study the proposed programming material.

e. Implementing instruction will proceed as follows:

1) After the instructor is trained, he evaluates materials and makes detailed plans relative to incorporating this material into the keypunch course.

2) The instructor will also evaluate and improve this course as experience is gained.

f. Equipment and materials required for keypunch training are:

Description	Quantity
Card Punch Operator Aptitude Test	50*
Illustrations	150*
Student Text	150*
Notebook	150*
Examination	150*
029 Printing Keypunch - Lease	15
5081 Punch Cards	50m*
Keypunch Ribbons	10*
082 Sorter - Lease	1
Transportation	
Keypunch Programmed Tapes	2
Tape Recorder - Wollansak	2
026 Printing Keypunch - Lease	6*

Although a complete complement of equipment is listed above, it should be noted that the cost of those items keyed with an asterisk will be assumed by the Charlotte-Mecklenburg School System. Costs associated with this Title III proposal are reflected in its financial section.

Computer Operation and Programming Training -

This program consists of basic computer concepts, programming and business data processing problems which is 180 hours long. Theory is taught in the classroom and applied to the IBM 1130 Computing System in the laboratory.

a. Content of Course

1) Sufficient training and experience to be a qualified job applicant for computer operator and/or programmer.

2) A fundamental knowledge of Data Processing Systems applicable to any computer system. Central processors, Input-Output Devices, Magnetic Tape, Direct Access (Disk) Files, and all major features and concepts will be covered thoroughly.

3) A fundamental knowledge of programming systems, monitors, data communications, and computer applications to business problems.

4) A basic, detailed knowledge of computer programming in both the Assembly and FORTRAN (Formula Translation) languages including their application to business applications.

b. Selection of Students

Students who are interested in data processing and make an acceptable score on the Programmers Aptitude Test are approved for enrollment by the instructor.

c. The Training Program

1) This course is one hour per day (180 hours per year) which provides sufficient time for classroom work and for working problems in the laboratory on the IBM 1130 Computing System.

2) Students will study, learn to operate, program and debug programs using the IBM 1130 Computing System with Card and Disk input and output and Printer output.

3) Field trips will be made to local computer installations.

4) Students will follow essentially the same course of study as recommended for instructor training.

d. Cost of Materials

The cost of textbooks, manuals, etc., should not exceed an estimated $20. per student.

e. Instructor training is a continuation of the training for the data processing instructor. The following courses are recommended:

Course Code	Description	No. of Days or Programmed Instructio
N 0030	Basic Computer Systems Principles	P. I.

The three volumes in this course include problem solving, computer components, data processing and programming, programming systems, magnetic tapes and disks. This course is intended for prospective programmers.

Course Code	Description	No. of Days or Programmed Instructio
N 0030	FORTRAN	P. I.

The basics of FORTRAN programming are presented in the form of self-teaching texts complete with exercises and problems. Arithmetic statements, control statements, input/output and format statements and sub-programming are included.

Course Code	Description	No. Days or P. I.
New*	IBM 1130 Computing System Features	2 Days

This course is designed to familarize systems planning and programming personnel with the design characteristics, operating features and configurations of the 1130 Computing System.

Course Code	Description	No. of Days or P. I.
S 1300	Direct Access Storage Concepts	3 Days

This course will discuss systems design in terms of direct access storage devices such as discs, drums, and data calls. The prime emphasis is: accessing requirements, addressing techniques, file organization, record design, audit and control, programming systems, and utility functions.

Course Code	Description	No. of Days or P. I.
New*	IBM 1130 Basic Programming	10 Days

This course is designed for programmers who will use the Assembler language. Topics covered are arithmetic logic, data handling for input/output operations and the use of subroutines.

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*The detailed course numbers have not been assigned and the number of days are estimated.

Course Code	Description	No. of Days or P. I.
I 2741	Basic Data Communications Concepts	2 Days

Basic Data Communications Concepts is an orientation to communication technology, purposes, concepts and potentials. The purpose of remote processing, how it is accomplished, and where it may lead are developed. The subjects discussed are card equipment remote terminals communicating with each other over teletype and telephone lines, sub-voice and voice grade line data transmission via card punches, paper tape and magnetic tape units, and an introduction to the concepts of computer-oriented remote processing systems.

f. Implementing the Course

The instructor will first address himself to learning a new art (and a new science) and second to reorganizing the course content and tempo of instruction to suit the student's maturity level.

As the instructor successfully masters each course of study, he must bear in mind that he will be directly responsible for presenting this material to his students.

g. Equipment and Material Required for Computer Operation and Program Training.

Description of 1130 System	Quantity
1131, M20, Central Processing Unit (8, 192 Words with Disk Storage Drive)	1
3616 Attachment for Printer - 1132	1
3054 Expansion Adapter (for Printer)	1
4454, 1442 Attachment	1
1442, M6, Card Read Punch Read 300 CPM, Punch 80 Cols. Sec.	1
1132, M1, Printer, 120 Pos., 80 LPM	1

The 029 Card Punches and the 082 Sorters will be available for both classes.

h. Other One-Time Costs (for both the keypunch and computer course): Additional costs may be incurred for remodeling the electrical wiring.

A minimum of specific Data Processing accessory items which are needed in the laboratory is as follows:

Description	Quantity
Card Files, 20 Drawer	2
Aptitude Test for Programmers	60
Student Materials	60
Teacher Materials	
Form Storage Cabinets	2
Electrical Wiring & Estimated Freight	
2315 MI Disk Cartridges	
Field Trip Expense	

4. Describe the method and procedures for evaluating these objectives.

The Data Processing program will be evaluated in a variety of ways as follows:

a. Personnel from the IBM office in Charlotte will assist school personnel in making a thorough appraisal of all phases of the data processing program.

    1) An evaluation will be made of the administration of the program in the Experimental Model Schools.

    2) Special attention will be devoted to appraising the procedure employed in screening and selecting students.

    3) Special aptitude tests will be administered to measure progress made by the students who are enrolled in the keypunch and computer courses.

b. School personnel and students will be involved in making subjective appraisal of the data processing program.

    1) Both students and teachers will be administered the Semantic Differential Test for the purpose of obtaining attitudes about the program.

    2) Forms will be used to obtain opinions of teachers regarding in-service training and data processing.

c. Visiting evaluators will be requested to conduct a special study of this new program.

1) Evaluators involved in appraising the total Experimental Model School Program will also evaluate the data processing program.

2) A team of visitors who have had specific experience in data processing instruction at the secondary school level will make a special appraisal of this new program.

CORRDINATION OF GUIDANCE ACTIVITIES PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

Educators and other social workers generally accept the fact that there is an increasing need for more guidance services for the youth of the present and future generations. The multitude of problems faced by young people today are all too well known to these professional workers and to parents who have pre-adolescent and adolescent children. Consequently, a large number of adults will support (mostly in spirit) the development and expansion of comprehensive guidance programs in the public schools and other social agencies.

The problem of upgrading and expanding the guidance programs in the public schools is an overwhelming one, to say the least. First, the guidance program must compete with other programs in the schools for the tax dollar which, in the opinion of educators, is not adequate to support the basic academic program which must receive priority. Secondly, even if funds were available, there are not enough trained counselors to fill the positions which would be created through expansion. In fact, there are not enough counselors to meet the present demand.

With little hope for significant increase in additional funds and personnel, the school administrator must look for other solutions to his guidance problems. Apparently, the most realistic approach to solving his dilemma rests with obtaining maximum services from the existing allotment of guidance personnel. He must, then, concentrate on making his guidance program more efficient through improved coordination and in-service training. If such an effort is to be effective, the counselor and the entire faculty must work together to assign guidance responsibilities, improve communications, and generally strive to improve the efficiency of the guidance program.

A consensus exists among guidance workers and counselors in the Charlotte-Mecklenburg School System that the teachers and principals could become more involved in student problems and guidance activities without decreasing the efficiency of the administration of the school or the instructional program. Likewise, some believe that improved guidance services for children will in the long run contribute greatly to the efficient operation of the school and the teaching-learning process.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

The primary objectives of this phase of the Experimental Model School Program are as follows:

a. To improve the guidance services provided to the children in the Experimental Model School Program through better coordination of activities, more involvement on the part of the entire school staff, and better in-service training activities.

b. To develop an exemplary model guidance program which can be duplicated by other schools in the system and in the region.

3. State in sequence the activities to be carried out in achieving these objectives.

The following projected activities will be initiated for the purpose of implementing the proposed guidance program in the Experimental Model School Unit.

a. A guidance coordinator will be selected and employed on a half-time basis for the purpose of directing the new activities of the proposed program.

b. During the summer months and the regular school year the coordinator will work with individual counselors and teachers and groups of these personnel in improving the efficiency of the guidance program. Tentative plans include working in the broad areas which follow:

   1) Clarifying and committing to writing the purposes, responsibilities, and functions of the Guidance Program for the Experimental Model School Unit (K-12).

   2) Defining roles of counselors, teachers, principals, parents and students; and planning ways to assist these persons to assume their own unique responsibilities in guidance activities

3) Seeking ways to encourage parents to take a more active role in helping their children with problems and thereby reducing the guidance workload of teachers and counselors.

4) Obtaining improved services of community social service agencies such as the welfare department, the mental health department, and the employment service.

5) Assisting teachers in using student records and information for the purpose of making early identification of student problems. Hopefully, through early identification and counseling, students' problems will be corrected before they become too serious.

6) Conducting in-service training programs in order to assist teachers to become more proficient in interpreting tests and utilizing available resources within the community.

7) Working with students and parents to encourage them to take more advantage of the guidance services offered in their schools and seek their suggestions for possible improvement.

8) Assisting in the articulation of programs between the schools in the Experimental Model School program, especially between feeder and receiving schools.

9) Involving personnel from other schools in the system for the purpose of informing them of the benefits of the

Experimental Model School Unit's guidance efforts as well as receiving their recommendations.

(10) Determining the need for a counselor at the elementary level.

4. Describe the method and procedures for evaluating these objectives.

The evaluation of the guidance activities will be conducted essentially in the same manner as other programs in the Experimental Model School Unit. (See write-up on evaluation). A special effort will be made, however, to ascertain through interviews with teachers and counselors the effectiveness of the emphasis toward better coordination and effective use of all available personnel.

TEACHING AND LEARNING THROUGH THE INQUIRY PROCESS PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

In 1959 George Stoddard wrote: "It now seems possible that many things can be learned in creative ways more economically and effectively than by authority. It appears that children can be taught in such a way that their creative thinking abilities are useful in acquiring even the traditional educational skills, that these abilities are different from those measured by traditional intelligence and scholastic aptitude tests, and that they are important in mental health and vocational success. Many educational leaders are seeing in these findings a demand for truly revolutionary changes in educational objectives, curricula, instruments for assessing mental growth and educational achievement, instructional procedures, counseling and guidance procedures, supervisory and administrative practices, and even in school building planning."[1]

Many educators would support Stoddard's statements and further add that children fundamentally prefer to learn by exploring, manipulating, questioning, experimenting, risking, testing, and modifying ideas. They would argue, nevertheless, that the overwhelming emphasis upon recall and reproduction, the dependence on authority, (the teacher or the text book), and the provision of a stimulating environment to the neglect of a responsive environment have created a society which falls far short of reaching its potential level.

Since the future of America to a great extent depends upon making the most effective use of the nation's intellectual resources, a thorough investigation of Stoddard's theories should be made. Hypotheses should be tested regarding whether children can really do productive thinking, learn more effectively through creative thinking, and do some thinking for themselves.

One organized approach to testing such hypotheses would be through the Inquiry Method. This method is designed to allow the student to direct and control his own learning with a minimum amount of assistance from his teachers. The role of the teacher is to create a desirable climate, help structure the process, organize the sequence, and assist the student in evaluating his progress. In doing so, she becomes the facilitator who encourages the child in every way to "program" his own learning. The emphasis thus is on self-directed inquiry which is characterized by freedom and a responsive environment.

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[1] George Stoddard, Creativity and Its Culture, Harper & Bros., New York 1959, 181 pp.

At the point inquiry is begun, the job of the teacher is to establish a condition which will sustain the student's efforts. He must be free to find his own answers without the pressures of teacher direction or questions, student competition, or grades. When these pressure conditions are removed, the student, it is believed, will be totally involved in the exciting process of true and rewarding learning.

Teacher support in this process does not deprive the student of his independence and initiative. Rather the teacher assumes a supportive role. She may provide data which will help the student test his theories, give encouragement, or even suggest a change in procedures; but, more importantly, the teacher would help the student examine the inquiry process itself, to come to know how knowledge comes into being, where theories come from, and how they can be appraised. The learner, by studying the process of inquiry understands better what he knows, how he knows it, and how to obtain new knowledge for himself. In short, the student through this process is converted from a consumer of knowledge to both a consumer and producer of knowledge.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

The overall objective of this project is to encourage a selected number of teachers and pupils to participate in a vital program of teaching and learning through the Inquiry Process as follows:

a. To develop self-directed students who are capable of functioning autonomously and productively in situations requiring certain intellectual skills. These skills would include:

   1) Identifying and analyzing problems.

   2) Solving problems in an orderly, thoughtful, and open-ended manner.

   3) Evaluating outcomes in terms of universal values, potential usefulness, and extended relationships.

   4) Communicating findings creatively in the form best suited to the problem under investigation.

   5) Developing dependable learning processes and patterns which can be applied to multi-situations.

b. To develop teachers who will encourage and foster learning among students through the inquiry method. To promote this type of behavior on the part of students, the teacher would:

   1) Participate in in-service training activities designed to instruct her to teach by the inquiry method.

   2) Conduct a self-examination of her own teaching behavior to determine the effect which she might have on a group of learners.

   3) Study the individual learner in order to determine how he can best function when learning through the inquiry approach.

3. State in sequence the activities to be carried out in achieving these objectives.

This program will be implemented at an elementary school in the Experimental Model School Unit in September of 1968.

- a. A six-week summer workshop, sponsored by a State University, will be offered to approximately 30 teachers.
  - 1) A qualified instructor will be employed for the purpose of conducting the workshop designed to acquaint teachers with the inquiry process and assist them in the development of inquiry units.
  - 2) Two classes of children (a primary and intermediate class) will be in session for demonstration purposes. Two teachers will be employed to conduct these classes.
  - 3) A director and secretary will be employed to provide leadership and administrative support to the training programs.
- b. Knowledge and skills obtained during the summer workshop will be applied in the elementary school during the regular school year.
  - 1) Application of inquiry methods will be made in selected classes.
  - 2) In-service training will be continued throughout the school year.
  - 3) Other schools in the Unit will be involved so that this type of program may be adopted throughout the school system.

4. Describe the method and procedures for evaluating these objectives.

The Inquiry Program will be evaluated mainly with the same procedures which will be employed generally in appraising the total project. Results from the basic testing program, the Semantic Differential Test, and selected tests to measure ability in the inquiry method will be employed to determine whether students in the experimental program surpassed selected students from a control group. Also, pupils, teachers, and a visiting team will provide a subjective evaluation of this program.

MOTIVATION FOR CREATIVITY PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

An increasing awareness exists on the part of educators that young people can do productive thinking; that emphasis on problem solving, creative thinking, and decision making is preferable to learning by recall and reproduction; and that achievement, enthusiasm, and other factors which make learning a thrilling adventure, are consistent products of a creative learning experience. In in-service and pre-service training programs, teachers and prospective teachers should be given the opportunity to test in action the theory that most things can be learned more economically and effectively in a creative way than by authority. Unless the teacher, the director of learning experiences, is personally convinced that learning and teaching by creative methods are superior, significant change and improvement are impossible.

A number of outstanding leaders in business and education are advocating that the development of the creativity potential in youth should immediately receive the highest priority at all educational levels. A significant move in this direction, however, would require truly revolutionary changes in educational objectives, instructional procedures, curricula, supervisory and administrative practices, instruments for assessing mental growth and educational achievement, and guidance and counseling procedures.

Realizing that schools tend to promote conformity and passivity rather than creative behavior, a small group in the Charlotte-Mecklenburg School System has been seeking ways to overcome this tendency. This planning is reflected in this portion of the proposal and in the section relating to the Inquiry Process.

Unless the learner desires to learn, learning is not likely to occur. The student must become involved in the curriculum to gain from it. Creativity should be encouraged and stimulated. Positive experiences which encourage the learner to achieve and to develop initiative and self-confidence are a pre-requisite to creativity.

Presently thirty junior and senior high school teachers are taking a special extension course relative to motivation and creativity. Paid for from funds provided by the State of North Carolina In-Service Division and some local funds, the course is designed to instruct teachers in the proper use of the time-sharing computer in connection with instruction and motivation. Major emphasis on this call-a-computer program from both the local staff and the State of North Carolina is an indication of its immeasurable value to a satisfying learning experience.

The state mathematics supervisor has pledged his support to the local school system in developing this project, a motivation for creativity. (See Appendix D)

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

The objectives of this proposed program are as follows:

a. To initiate a variety of teaching methods in order to help motivate students to develop their creativity.

b. To encourage teachers to employ creative techniques in their instructional programs.

3. State in sequence the activities to be carried out in achieving these objectives.

To satisfy the above stated objectives, the projected activities are presented as follows:

One faculty member at the high school level will be selected to coordinate the instruction and activities involving the Call-A-Computer Program. This person will allot two-thirds of his working time to supervising and encouraging students and teachers to become involved in creative learning and teaching experiences.

During the first year of this project students enrolled in various classes will experiment with innovative techniques for developing creative potential.

The only significant additional equipment or materials required for this program will be equipment for participation in a "Call-A-Computer-Program"

(Time Saving Computer Service). This system, developed by Dartmouth College, uses a single computer (Raleigh, N. C.) which can be linked to 200 individuals who at a given time communicate by teletype over telephone lines. Because the computer responds in seconds, every terminal (whether in Raleigh or in a remote section of the State) receives virtually the same service.

Although pioneering public schools have used this time-sharing system primarily for mathematics and physics, the potential in all subject areas is outstanding. The planners of this project, however, are not interested in encouraging automated drill in particular subject areas. Rather, they are very much interested in what the student, himself, will invent when confronted with the opportunity. The aim is to demonstrate the fact that the computing can encourage the student to think creatively. It is the planners' contention that the student who creates a theory, even a simple one, can test it empirically by use of the computer, make changes, and finally develop algorithms that are new to him.

As in the initiation of any new program, the implementation of the time-sharing system in a high school will involve a number of problems. In order to help eliminate some of the most serious problems, the project staff has participated in a great deal of planning, and, as a result, are making the tentative recommendations which follow:

a. The terminal which will be purchased will be located in the learning resource center at the participating high school.

b. The part-time employee selected to coordinate this program will be responsible for scheduling the use of the terminal. The students and teachers participating in the creativity program will be assigned priority time; at other times student use of the terminal will be unrestricted.

c. The terminal should be made available before and after class and during the regular school day.

d. In order to obtain optimum use of the time-sharing system, teachers will be given a comprehensive in-service training program. The ultimate aim is to assure that all professional participants have a fairly sophisticated programming ability.

e. A teacher's handbook will be developed for all participating professional personnel. Included in this handbook will be objectives of the time-sharing system at the secondary school level, a description of the general application of the system, programming instructions, teachers' study guide, and a guide for extra-curricular use of the system.

4. Describe the method and procedures for evaluating these objectives.

A special effort will be made to make a thorough and comprehensive evaluation of the time-sharing system. Both teachers and pupils will be involved in the ways which follow:

a. Both student and teacher training processes of this program will be evaluated. Available tools (i.e., Welsh Figure Preference Test* and the Biographical Inventory*) will be administered to teachers and pupils in order to provide data for evaluation purposes.

b. The students involved in this particular program, as well as a selected control group, will be administered the two tests listed above and other selected tests on a pre and post test basis. The performance of students in the experimental program will be evaluated by comparing the progress between the two groups.

c. Students and teachers will be requested to give their reactions to the program by responding to the Semantic Differential Scale.

d. Additional evaluative instruments will be developed to obtain subjective appraisals.

e. The visiting team which will evaluate the total Experimental Model School Program will be requested to devote special attention to evaluating and criticizing the time-sharing system.

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*Tests designed to measure creativity.

INFORMATION AND DISSEMINATION

EVALUATION PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

No change. The projected activities for the continued operation of this program do not reflect any additional educational needs.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives to be achieved during the continued operation of this program are as originally stated in the proposal submitted for an operational grant for the 1967-68 budget period.

3. State in sequence the activities to be carried out in achieving these objectives.

The projected activities for the 1968-69 budget period provide for the continuation, in greater depth, of those program activities originally stated in our 1967-68 budget period proposal.

Additional projected activities include the developing and processing of the following:

a. Questionnaires for obtaining subjective appraisal from teachers, students, and parents on new phases of programs and new programs which are developed as an integral part of the Experimental Model

School Program. For example, parents will be requested to react to the new mathematics which is offered under the Individually Prescribed Instruction Project.

b. Tests which measure progress in new subject area or subject area with new emphasis - - oral language tests, for example, would be employed as the foreign language program in the Experimental Model School Program emphasizing more oral communication.

c. Scales which are designed specifically to measure supplementary, administrative, and supportive aspects of the program. One example would be a simple scale which would allow teachers and principals to evaluate the effectiveness of the Experimental Model School staff members who work out of the central office.

Whenever possible the progress obtained by students in the experimental schools will be compared with students from other schools in the administrative unit. Already control groups have been selected randomly.

Wherever possible, final performance of students in any experimental groups will be compared to that in the control groups, with allowance made for inequality in initial performance. For this comparison we will use an analysis of covariance, which evaluates the differences between final performance and predicted performance. Predicted performance was determined by computation involving initial scores and the correlation between initial and final scores. The analysis of covariance reduces the size of biasing errors in the random selection of students to the extent that initial differences among students are linearly related to final differences.

All demo-graphic and list data will continue to be keypunched and stored on cards. This process permits processing by a computer which enables speed, flexibility, and accuracy in analyzing the data.

As outlined in the original project proposal, a great deal of emphasis will be placed on the subjective appraisals of student and professional participants as well as visiting teams who are employed to analyze and evaluate various phases of the Experimental Model School Unit Project.

After each project year, both subjective data and objective test results will be analyzed in an attempt to draw valid conclusions concerning the various aspects of the Experimental Model School Unit Project.

The personnel in this project are committed to a sound and comprehensive program of evaluation. Through the wise selection of evaluative instruments, the use of appropriate statistical procedures, and objective and unbiased reporting of results, the Experimental Model School Program, hopefully, will be able to recommend to the Charlotte-Mecklenburg School System and other systems in the region some selected programs which should be duplicated.

Provisions will also be made to integrate the new experimental programs into the overall evaluation scheme.

4. Describe the method and procedures for evaluating these objectives.

The methods and procedures for evaluating the objectives of this program are delineated in our 1967-68 budget period proposal and further discussed in part II, 1. (a) of this submission.

EXPERIMENTAL MODEL SCHOOL UNIT EVALUATION

1. Describe the additional educational needs to be met with the proposed program.

Since a competent evaluator was impossible to secure due to the laws of supply and demand, the evaluation program designed to evaluate the organizational unit experienced little or no activity during the 1967-68 budget period. Subjective data on the success of the organizational pattern is all that will be able to be reported in the final report for the operational year 1967-68.

Our search for a director of evaluation will be continued and hopefully one secured. When this is accomplished, this program for evaluating the administrative program of the Experimental Model School Unit will be fully implemented.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives to be achieved during the implementation of this program are as originally stated in the proposal submitted for an operational grant for the 1967-68 budget period.

3. State in sequence the activities to be carried out in achieving these objectives.

The projected activities for the 1968-69 budget period provide for the implementation of those program activities originally stated in our 1967-68 budget proposal.

4. Describe the method and procedures for evaluating these objectives.

The methods and procedures for evaluating the objectives of this program are delineated in our 1967-68 budget period proposal.

IN-SERVICE EDUCATION PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

For the most part, in-service education's projected activities for the continued operation of this existing Experimental Model School Unit programs do not reflect any additional educational needs. Conversely, when considering in-service education's added training responsibility for teachers in the new experimental programs described in Part II, additional needs are to be met. The essential needs include more time for the training of Experimental Model School teachers, and additional personnel to carry out these plans.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

The objectives for in-service training for the remaining project years further emphasize the aims which were projected in the original proposal. They are as follows:

a. Provide a continuous and comprehensive program of pre-service and in-service training for all new and experienced personnel within the Experimental Model School Unit in order that maximum benefits be derived from the programs for the children and professional personnel involved in the projected schools.

b. Through involvement and dissemination, provide other personnel in the Charlotte-Mecklenburg School System and the region the new ideas, skills, and knowledge learned in the Experimental Model School Unit.

c. Evaluate thoroughly the various phases of the in-service training program in order that improvement can be made in future in-service training programs conducted in the Experimental Model School Program and the Charlotte-Mecklenburg School System.

3. State in sequence the activities to be carried out in achieving these objectives.

During the early stages of the project's second operational year and throughout the remaining project period, training of all personnel will receive increased emphasis, time, and effort. Briefly, the plans for the future include the activities which follow:

a. Special attention will be devoted to analyzing existing data and obtaining additional opinions and information to provide insight into ways training programs may be made more effective. To this end, professional personnel will be invited to provide constructive criticism and recommendations for improvement.

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b. In individual conferences and group meetings, new personnel will be informed of the philosophy, aims, and activities of the projects as well as provided specific training in their particular area of responsibility.

c. Additional in-service personnel will be added and assignments altered in order to provide more and better services. The additions and changes to be made are as follows:

1) At the junior high school level an additional in-service teacher will be assigned to provide a total of four teachers. One of these teachers will release science teachers for training; one will release mathematics teachers; and the remaining two will release humanities teachers. Experience during the current year indicates that the project can be served best if one teacher is assigned responsibility for mathematics and another assigned science rather than assigning one teacher to both of these subject areas.

2) In-service teachers will also be assigned specific subject matter responsibility at the high school level. With an additional teacher making a team of four, one teacher each will release English, social studies, mathematics, and science teachers for in-service training activities.

3) For the newly proposed Occupational Mix and Commonalities Program, three relief teachers will be employed to sub-

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stitute for vocational teachers who will be involved in pre-service and in-service training activities. Project staff members, in cooperation with vocational supervisors and directors, are currently involved in planning for a future in-service training program for this project. (All in-service expenditures concerning the Occupational Mix and Commonalities Program are reflected in that respective budget.)

4) In order to further improve the project's in-service training program, an additional closed-circuit television installation is being planned for one project school. This installation, which has proved to be invaluable in instructional and in-service training programs in school systems, will provide flexibility in scheduling, the utilization of outstanding experts and demonstration through taped presentations, and broader participation of local teachers, parents, pupils, and businessmen in training and instructional activities. The closed-circuit television prime purpose is for in-service training of visiting teachers. (See original proposal.)

d. A major aim for the second project year is to develop better planning, coordination, and administration of the project's total in-service training program. Hopefully, this goal will be attained by assigning one staff member primary responsibility for coordination of the in-service training program; involving principals, directors, and key teachers in planning, conducting, and evaluating training activities; and soliciting the assistance of local people from industry and colleges in making presentations.

4. Describe the method and procedures for evaluating these objectives.

Activities projected for the teacher exchange portion of the in-service program were originally planned to be executed at all three levels - elementary, junior high and secondary. However, a great turnover in staff at the elementary level presented a need for the training of new personnel, thus delaying the operation of this program in the elementary schools. It is the opinion of the administration that another year will be needed for the dissemination of the elementary projects through the teacher exchange program.

The project staff and the personnel at the participating project schools wish to impose upon themselves the same high standards for the In-Service Education Program,, which hopefully, will be maintained for all other project activities. In order to accomplish this goal, they are committed to the plan which briefly follows:

a. Both in-service training leaders and participants will be requested to evaluate each organized training effort which will be conducted during the duration of the Project. The Semantic Differential Scale and forms in the process of being developed will be used to help solicit opinions. Results of evaluations will be analyzed continuously for the purpose of implementing desirable improvements.

b. Visiting evaluation teams will be requested to appraise the in-service training program as a major responsibility of their total evaluation activities.

c. The findings of the evaluation of the in-service training program will be disseminated to project participants, and other school personnel in the school unit and region in order that promising practices may be adopted by others concerned with improving in-service training programs.

DISSEMINATION PROGRAM

1. Describe the additional educational needs to be met with the proposed program.

No Change. The projected activities for the continued operation of this program do not reflect any additional educational needs.

2. Describe in detail the additional objectives of the proposed program as related to the needs described above.

Objectives to be achieved during the continued operation of this program are as originally stated in the proposal submitted for an operational grant for the 1967-68 budget period.

3. State in sequence the activities to be carried out in achieving these objectives.

In administering the Experimental Model School Project, the personnel in the Charlotte-Mecklenburg School System are unequivocally committed to disseminating information according to a definite plan and schedule.

Since a major part of this project deals with dissemination efforts, and since some phases of the total program specify the types of dissemination to be undertaken, it would be redundant to repeat these proposed aspects of dissemination efforts. In general, however, the project plans to carry out these overall activities for dissemination.

Now that the project is well underway and information from the first-year's evaluation is soon forthcoming, emphasis on dissemination will be increased markedly.

a. The person who has the responsibility for coordinating and supervising dissemination will devote most of his time to this endeavor. His role, as in the past, will be to disseminate valid and reliable information in addition to publicizing the Experimental Model School Program.

b. The project director and key staff members will be assigned specific responsibility for speaking at meetings and conferences, helping to write news and journal articles, and conducting and supervising conferences and visitation programs.

c. Students and parents will be involved in both receiving and disseminating information.

d. A minimum number of copies of printed or duplicated information will be disseminated without cost to the receiver.

e. Emphasis will be directed at disseminating information in a variety of ways and through various media. The Charlotte-Mecklenburg television facilities will be used to a greater extent than formerly for dissemination purposes.

f. A strict accounting and evaluation will be made of all dissemination activities.

g. Specific activities to which the project staff are committed follow:

    1) A two-day invitational conference will be held for key educators and/or local school members during each of the two remaining years of the project. The primary purpose of these conferences is to create interest among the participants in conducting similar innovative projects.

    2) Members of the State School Board and State Department of Public Instruction will be issued a special invitation to visit the Experimental Model School Unit.

    3) During each year a minimum of twenty key educators in North Carolina will be invited to visit and participate in project activities in groups of five for five days per group. A definite program will be formulated for these visitors.

    4) Project activities will be featured in the newsletter which is published and disseminated by the Charlotte-Mecklenburg School System.

    5) Hopefully, local and state newspapers will feature project activities as well as carry news items about the project on

an incremental basis.

6) The director of dissemination will be responsible for a minimum of one Experimental Model School Unit article each year, which will be submitted to either a state or national professional journal.

7) Curriculum guides, courses of study, and other printed materials will be printed and disseminated to interested people.

8) Copies of periodic evaluation reports will be printed and disseminated to key people in the state and nation.

9) At the end of the three-year project period, a comprehensive report of the project will be written and disseminated.

10) A special conference will be held at one of the schools in the Unit for representatives of local colleges in North Carolina.

11) A special conference will be held in November 1968 for representatives of non-public schools. The conference will focus on those findings that have special significance to the needs of such schools.

12) Copies of units of work developed under the project will be disseminated to visitors upon request, to schools in Charlotte-Mecklenburg, to the State Department of Public Instruction, and to other schools operating under a Title III, ESEA Project.

13) Video tape recordings will be made of special instructional activities - - large-group instruction, small group instruction, independent study, and these will be made available to schools and teacher training institutions.

14) Schools in the Experimental Unit will be open to visitors every week when school is in session. Professional personnel will be available to explain the program.

15) All materials developed will be made available to those groups for which these materials will have the greatest relevance.

4. Describe the method and procedures for evaluating these objectives.

The methods and procedures for evaluating the objectives of this program are delineated in our 1967-68 budget period proposal and further discussed in Part II, 1.(a) of this submission.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. [illegible]
APPROVAL EXPIRES [illegible]

PROPOSED BUDGET SUMMARY/EXPENDITURE REPORT OF FEDERAL FUNDS

Title III, Elementary and Secondary Education Act of 1965 - Supplementary Centers and Services Program

(NOTE: Please read the attached instructions before completing this form)

NAME AND ADDRESS OF AGENCY CHARLOTTE-MECKLENBURG SCHOOL SYSTEM	PROJECT NUMBER 3720	GRANT NUMBER OEG-3-7-703720-4882	STATE North Carolina
PART I - EXPENDITURES (other than construction)	(Check One) ☒ PROPOSED BUDGET SUMMARY (ATTACH DETAIL SCHEDULES)	☐ ESTIMATED EXPENDITURE REPORT ☐ FINAL EXPENDITURE REPORT	BUDGET PERIOD (MONTH, DAY, & YEAR) BEG. July 1, 1968 END. June 30, 1969

	EXPENDITURE ACCOUNTS		EXPENSE CLASSIFICATION								
			SALARIES								
	FUNCTIONAL CLASSIFICATION	ACC'T NO.	PROFESSIONAL	NON-PROFESSIONAL	CONTRACTED SERVICES	MATERIALS AND SUPPLIES	TRAVEL	EQUIPMENT	OTHER EXPENSES	TOTAL EXPENDITURES	NEGOTIATED BUDGET
	1	2	3	4	5	6	7	8	9	10	11
1	ADMINISTRATION	100	$ 48,000.00	$ 16,720.00	$ 500.00	$ 2,550.00	$ 4,600.00	$	$ 12,000.00	$ 84,370.00	$
2	INSTRUCTION	200	500,897.00	102,140.00		76,159.00	11,825.00		67,187.00	758,208.00	
3	ATTENDANCE SERVICES	300									
4	HEALTH SERVICES	400									
5	PUPIL TRANSPORTATION SERVICES	500									
6	OPERATION OF PLANT	600		3,660.00		1,000.00			5,442.00	10,102.00	
7	MAINTENANCE OF PLANT	700			500.00				500.00	1,000.00	
8	FIXED CHARGES	800							87,668.00	87,668.00	
9	FOOD SERVICES	900									
10	STUDENT BODY ACTIVITIES	1000									
11	COMMUNITY SERVICES	1100									
12	REMODELING (IF COSTS TOTAL MORE THAN $2000 ENTER IN PART II)	1200-							64,046.00	64,046.00	(See Part II Construction Expenditures)
13	CAPITAL OUTLAY (EQUIPMENT ONLY)	1200						61,197.00		61,197.03	
14	TOTAL →		$ 548,897.00	$ 122,520.00	$ 1,000.00	$ 79,709.00	$ 16,425.00	$ 61,197.00	$ 236,843.00	$1,066,591.00	$
15	NEGOTIATED BUDGET →		$	$	$	$	$	$	$	**************	$

PART II — CONSTRUCTION EXPENDITURES

(Check One)
☒ PROPOSED BUDGET SUMMARY
☐ ESTIMATED EXPENDITURE REPORT
☐ FINAL EXPENDITURE REPORT

BUDGET PERIOD (Month, Day, & Year)
BEGINNING: July 1, 1968
ENDING: June 30, 1969

	EXPENDITURE ACCOUNTS	ACCT'S NUMBER	AMOUNT	NEGOTIATED BUDGET
	1	2	3	4
1	SITES			
a	ADDITIONS TO SITES ~~[illegible]~~	1210B [illegible]	$ 50,000.00	$
b	IMPROVEMENT TO SITES	[illegible]	1,950.00	
2	BUILDINGS			
a	PROFESSIONAL SERVICES	[illegible]		
b	NEW BUILDINGS AND BUILDING ADDITIONS	[illegible]	12,096.00	(See attached budget breakdown)
c	REMODELING (IF $5,000 OR LESS ENTER IN PART I)	[illegible]		
3	ADMINISTRATIVE EXPENSES (Specify below)	[illegible]		
a				
b				
4	LEASING OF FACILITIES			
5	TOTAL →		$ 64,046.00	$

PART III — SUMMARY - AUTHORIZATIONS, EXPENDITURES, AND BALANCES OF TITLE III ESEA FUNDS

BUDGET PERIOD (Month, Day, and Year)
BEGINNING:
ENDING:

☐ ESTIMATED EXPENDITURE REPORT
☐ FINAL EXPENDITURE REPORT

		ITEMS		PART I - EXPENDITURES OTHER THAN CONSTRUCTION	PART II CONSTRUCTION EXPENDITURES	TOTAL
		1		2	3	4
1		AMOUNT AUTHORIZED FOR EXPENDITURE FOR BUDGET PERIOD SHOWN ABOVE →		DOES NOT APPLY		
	a	UNEXPENDED FUNDS FROM GRANT AWARDS FOR PRIOR BUDGET PERIOD	$	SEE THE FOLLOWING SEPARATE ESTIMATED EXPENDITURE REPORT		
	b	APPROVED GRANT AWARD FOR BUDGET PERIOD SHOWN ABOVE	$			
	c	TOTAL FUNDS AUTHORIZED FOR BUDGET PERIOD ABOVE (SAME AS ITEM 1, COL. 4)	$			
2		EXPENDITURES DURING BUDGET PERIOD SHOWN ABOVE →				
3		UNEXPENDED BALANCE OF FUNDS AUTHORIZED FOR EXPENDITURE DURING BUDGET PERIOD SHOWN ABOVE (ITEM 1 MINUS ITEM 2) →				

PART IV — CUMULATIVE TOTALS - GRANT AWARDS AND CASH RECEIVED SINCE INCEPTION OF PROJECT

	ITEMS	CUMULATIVE TOTAL TO DATE
1	GRANT AWARDS	DOES NOT APPLY
2	CASH RECEIVED	SEE THE FOLLOWING SEPARATE ESTIMATED EXPENDITURE REPORT

THIS FISCAL REPORT IS CORRECT AND THE EXPENDITURES INCLUDED HEREIN ARE DEEMED PROPERLY CHARGEABLE TO THE GRANT AWARD.	SIGNATURE OF PROJECT FISCAL OFFICER Everett P. Cameron	DATE 4-17-68
	SIGNATURE OF PROJECT DIRECTOR Marjorie B. Burk	DATE 4-17-68

FOR OFFICE OF EDUCATION USE ONLY

ACCOUNTING DATA

TRANS. CODE	DOC. REF.	OBLIGATION NUMBER	FY	UNIFORM ACCTING NO.	OBJECT CLASS	PROGRAM CODES				VOUCHER NUMBER	SCHEDULE NUMBER
						SUB-CLASS	DIV.-FAC.		REG. DIST.		
1	2	3	4	5	6	7	8	9	10	11	12

REG. CODE	COUNTY/ MUNICIPAL	VENDOR NUMBER	AMOUNT	CR. IND.	GENERAL LEDGER		APPROPRIATION SYMBOL	
					DEBIT	CREDIT		
13	14	15	16	17	18	19	20	21

EXPENDITURE ACCOUNT NO. 100 Administration

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary Rental or Unit Cost	Budgeted Amount
		Full	Part			
Salaries						
Professional						
	Brodt, Marjorie, Project Director (Administration)	X		1 - 12 mo.		
	Davis, Barbara, Assistant Director (Dissemination)	X		1 - 12 mo.		
	______,_______, Director (Evaluation)	X		1 - 12 mo.		
	Gantt, Lucinda, Data Research Analyst (Evaluation)	X		1 - 12 mo.		
					Subtotal	$ 48,000.00
Non-Professional						
	Secretary - Administration	X		1 - 12 mo.		
	Secretary - Dissemination	X		1 - 12 mo.		
	Secretary - Evaluation	X		1 - 12 mo.		
	Accountant - Administration		X ½	1 - 12 mo.		
					Subtotal	$ 16,720.00
		Total Budgeted Amount A/C No. 100 (continued)				$ 64,720.00

EXPENDITURE ACCOUNT NO. 100 Administration

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary Rental or Unit Cost	Budgeted Amount
		Full	Part			
Contracted Services						
	George G. Scott and Company Audit of Account				500.00	$ 500.00
					Subtotal	500.00
Materials and Supplies						
	Administration			12 mo.	142.00	1,700.00
	Dissemination			12 mo.	71.00	850.00
					Subtotal	$ 2,550.00
Travel						
	Project Director - Local			12 mo.	60.00 mo.	720.00
	Special Trips, Conferences Per Diem			20 days	15.00 (day)	300.00
	Air travel, car rental, and registrations			6	200.00	1,200.00
	Director - Evaluation - Local			12 mo.	40.00 mo.	480.00
	Special Trips, Conferences Per diem			8 days	15.00 (day)	120.00
	Air travel, car rental, and registrations			2	190.00	380.00
	Assistant Director - Dissemination - Local			12 mo.	50.00 mo.	600.00
	Special Trips, Conferences Per diem			16 days	15.00 (day)	240.00
	Air travel, car rental, registrations			4	140.00	560.00
					Subtotal	$ 4,600.00
				Total Budgeted Amount A/C No. 100 (continued)		$ 72,370.00

EXPENDITURE ACCOUNT NO. 100 Administration

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary Rental or Unit Cost	Budgeted Amount
		Full	Part			
Other Expenses Printing Costs - Dissemination						$ 12,000.00
					Subtotal	$ 12,000.00
					Total Budgeted Amount A/C No. 100	$ 84, 370.00

EXPENDITURE ACCOUNT NO. 200 Instruction

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary Rental or Unit Cost	Budgeted Amount
		Full	Part			
Salaries						
Professional						
	Templeton, Grace, Coordinator - Secondary H. S.	X		1 - 12 mo.		
	Andrews, Grace, Coordinator - Secondary Jr. H. S.	X		1 - 12 mo.		
	Andrews, Clifton, Coordinator - Elementary	X		1 - 12 mo.		
	________, ________, Coordinator - Elementary	X		1 - 12 mo.		
	Humanities Specialists (Sr. H)	X		1 - 10 mo.		
	Humanities Specialists (Jr. H)	X		1 - 11 mo.		
	Nicholson, Ann, Coordinator-Learning Resources Center	X		1 - 12 mo.		
	________, ____, Coordinator - In-Service	X		1 - 12 mo.		
	________, ____, Coordinator - Guidance		X 1/2	1 - 12 mo.		
	A. V. Specialist	X		1 - 12 mo.		
	A. V. Specialists	X		2 - 10 mo.		
	A. V. Technicians	X		2 - 10 mo.		
	Librarians	X		3 - 10 mo.		
	T. V. Engineer	X		1 - 12 mo.		
	Total Budgeted Amount Salaries Professional (continued)					$ 163,294.00

EXPENDITURE ACCOUNT NO. 200 - Instruction

Expense Class	Name & Title, Purpose, or Item	Project Time Full	Project Time Part	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Salaries Professional Teachers Kindergarten		X		1 - 10 mo.		
Elementary - Team Teaching (music)		X		1 - 10 mo.		
	I.P.I. - Floating Teachers	X		2 - 9 1/2 mo.		
Junior High - (1) Music, (1) Art, (2) Floating Teachers		X		4 - 10 mo.		
Senior High - Nature Center		X		1 - 12 mo. Team Leader		
	(1) Dial - A- Computer - Teacher		X 2/3	1 - 10 mo.		
	(1) L. R. C. - Vocational	X		1 - 11 mo.		
In-Service - (4) Sr. High (4) Jr. High		X		8 - 9 1/2 mo.		
	Sr. High - Vocational	X		3 - 11 mo.		
Learning Resource Center		X		8 - 10 mo.		
				Total Budgeted Amount Salaries Professional (continued)		$ 415,870.00

EXPENDITURE ACCOUNT NO. 200 Instruction

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary Rental or Unit Cost	Budgeted Amount
		Full	Part			
Salaries						
Professional						
Team Leaders -	Elementary - 6		1/10 of salary (supplement not to exceed 750)	21		
	Junior High - 5					
	Senior High - 7					
	Learning Resource Center - 3					
Teachers -	Extra employment - Saturday, after hours - Guidance Program		X	200 days		
Summer Employment						
	Coordinator - Foreign Language		X	1-3 mos.		
	Coordinator - Prof. Inquiry Process		X	1-6 wks.		
	Coordinator - Inquiry Process		X	1-8 wks. (2 mos.)		
	In-Service - Teachers (3 Schools)		X	150 - 1 wk. (5 days)		
	I.P.I. (1 Elem. School)		X	15-2 wks. (10 days)		
	Teachers - (Junior High)		X	5-8 wks. (40 days)		
	Teachers - (Nature Center)		X	3-8 wks. (40 days)		
	Teachers - Team Leaders (Elementary)		X	6		
	(High School)			7		
	(L.R.C.)			3 16 days		
	Teachers - (Inquiry Process)		X	2-8 wks. (2 mos.)		
				Total Budgeted Amount (SALARIES PROFESSIONAL)		$500,897.00

EXPENDITURE ACCOUNT NO. 200 - Instruction

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary Rental or Unit Cost	Budgeted Amount
		Full	Part			
Salaries						
Non-Professional						
	Secretaries - Schools	X		4 - 12 mo.		
	Secretary	X		1 - 12 mo.		
	Secretary - In-Service	X		1 - 12 mo.		
	Secretary - Coordinator - L. R. C.	X		1 - 12 mo.		
	Aides - Kindergarten	X		1 - 10 mo.		
	Aides - Elementary	X		6 - 10 mo.		
	Aides - Junior High	X		5 - 10 mo.		
	Aides - Secondary	X		4 - 10 mo.		
	Aides - L. R. C.	X		3 - 10 mo.		
	Aides - I. P. I.	X		4 - 10 mo.		
	Secretary - Foreign Language		X	1 - 3 mo.		
	Secretary - Inquiry Process		X	1 - 2 mo.		
	Total Budgeted Amount - Salaries Non-Professional					$ 102,140.00
	Total Budgeted Amount A/C No. 200 (continued)					$ 603,037.00

EXPENDITURE ACCOUNT NO. 200 - Instruction

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary Rental or Unit Cost	Budgeted Amount
		Full	Part			
Materials and Supplies						
Library Books -	Humanities - High School					$ 3,332.00
	Humanities - Jr. High School					2,132.00
	Kindergarten					500.00
	L. R. C. - Elem, Jr. H, Sr. H.					4,500.00
	Nature Center					800.00
	Team Teaching - Devonshire					1,200.00
	Team Teaching - Jr. Hi. - Math & Sci.					2,550.00
				Subtotal a/c 230 a		$ 15,014.00
Periodical and Newspapers -	L.R.C.-Elem, Jr. Hi,Sr.Hi					1,500.00
				Subtotal a/c 230 b		$ 1,500.00
Audio-Visual Materials -	Dissemination					575.00
	Humanities - Sr. Hi.					5,500.00
	Humanities - Jr. Hi.					4,500.00
	Kindergarten					290.00
	L.R.C. - Elem, Jr. H., Sr. H.					9,000.00
	Nature Center					700.00
	Team Teaching - Devonshire					600.00
	Foreign Language					210.00
	Data Processing					50.00
	Occupational Mix					3,000.00
				Subtotal a/c 230 c		$ 24,425.00
Library Supplies						900.00
				Subtotal a/c 230 d		$ 900.00
Materials and Supplies						
Evaluation Materials -	Tests					3,000.00
Instructional Supplies -	Humanities - Sr. High					2,000.00
	In-Service					600.00
	Kindergarten					2,000.00
				Total Budgeted Amount A/C No. 200 (continued)		$ 652,476.00

EXPENDITURE ACCOUNT NO. 200 - Instruction

Expense Class	Name & Title, Purpose, or Item	Project Time		Quantity	Salary Rental or Unit Cost	Budgeted Amount
		Full	Part			
Instructional Supplies -	L.R.C. - Elem., Jr.H., Sr.H.					$ 3,000.00
	Nature Center					3,000.00
	Team Teaching - Elementary					4,396.00
	Team Teaching - Math & Science - Jr.H.					2,500.00
	I.P.I.					6,500.00
	Data Processing					59.00
	Motivation for Creativity					180.00
	Inquiry Process					1,500.00
				Sub-Total A/C No.240		$ 28,735.00
Office Supplies -	Administration					1,200.00
	Humanities - Sr. High					225.00
	Humanities - Jr. High					225.00
	In-Service					300.00
	Kindergarten					125.00
	L.R.C. - Elem., Jr.H., Sr.H.					600.00
	Nature Center					50.00
	Team Teaching - Elem.					500.00
	Team Teaching - Jr.H. Math & Science					1,000.00
	Team Teaching - Sr. High					500.00
	I.P.I. - Training Materials-Teachers			16	10.00	160.00
	Foreign Language					100.00
	Guidance					300.00
	Inquiry Process					300.00
				Sub-Total A/C No. 250A		$ 5,585.00
	Total Budgeted Amount - Materials and Supplies A/C No. 230, 240 and 250A					76,159.00
	Total Budgeted Amount A/C No. 200 (continued)					$679,196.00

EXPENDITURE ACCOUNT NO. 200 - Instruction

Expense Class	Name & Title, Purpose, or Item	Project Time Full	Project Time Part	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Travel						
Coordinators - Schools - Local - Professional Trips				4	500.00	$ 2,000.00
In-Service - Coordinator - Local				12 mo.	50.00 mo.	600.00
Professional Trips						500.00
L.R.C.- Coordinator - Local				12 mo.	50.00 mo.	600.00
Professional Trips						500.00
Nature Center - Staff						400.00
Consultants						
per diem	1,500.00			100 days	15.00 day	4,890.00
auto/air travel	3,390.00					
I.P.I. - Professional Trips						
per diem	735.00			49 days	15.00 day	2,085.00
auto/air travel	1,350.00					
Field Trip - Students - Data Processing						250.00
				Subtotal	a/c 250 b	$ 11,825.00
Evaluation Costs						
Computer Time						7,000.00
Scoring						
(15,000 tests @ .80) pre and post						12,000.00
Data Processing I.P.I. material						2,750.00
Consultants						
Dissemination - Conference				20 days	75.00 day	1,500.00
Evaluation Teams				20 days	75.00 day	1,500.00
				Total Budgeted Amount		$ 715,771.00

A/C No. 200 (continued)

EXPENDITURE ACCOUNT NO. 200 - Instruction

Expense Class	Name & Title, Purpose, or Item	Project Time Full	Project Time Part	Quantity	Salary Rental or Unit Cost	Budgeted Amount
	Instructional Consultant			58 days	75.00 day	$ 4,350.00
	Sensitivity Training - Bethel, Maine					5,000.00
Equipment - Rental						
	029 - Printing keypunch			15	69.00 mo.	12,420.00
	082 - Sorter			1	55.00 mo.	660.00
	1131 - Central Processing Unit			1	375.00 mo.	4,500.00
	3616 - Attachment for Printer 1132			1	10.00 mo.	120.00
	3054 - Expansion Adapter			1	5.00 mo.	60.00
	4454, 1442- Attachment			1	36.00 mo.	432.00
	1442, M6 - Card Read Punch			1	265.00 mo.	3,180.00
	1132, M1 - Printer, 120 Positions, 80 LPM			1	268.00 mo.	3,216.00
Transportation - Rental Equipment						700.00
Equipment - Rental						
	Teletype - Terminal			1 - 12 mo.	450.00 mo.	5,400.00
	Teletype - Telephone			1 - 12 mo.	75.00 mo.	900.00
	Telepak Telephone Line			1 - 12 mo.	108.00 mo.	1,296.00
	Telephone circuit installation charge					28.00
	Terminal installation					75.00
	User number assignment					100.00
				Subtotal a/c 250		$ 67,187.00
				Total Budgeted Amount Account 200		$ 758,208.00

EXPENDITURE ACCOUNT NO. 600 Operation of Plant

Expense Class	Name & Title, Purpose, or Item	Project Time Full	Project Time Part	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Salaries						
Non-Professional						
Custodian - Nature Center		X		1-12 mos.	305.00 mo. (3,660.00)	$ 3,660.00
					Sub-Total	$ 3,660.00
Supplies						
Custodian - Nature Center						1,000.00
					Sub-Total	$ 1,000.00
Nature Center Building						
Heating				6 mos.	25.00 mo.	150.00
Electricity				12 mos.	25.00 mo.	300.00
Telephone - 1 per school				4-12 mos.	10.00 mo. (120.00 yr.)	480.00
Administrative Offices				12 ext. (12 mos.)	23.00 mo. (276.00 yr.)	3,312.00
Long Distance				12 mos.	50.00 mo.	600.00
Operation of Nature Center Truck and Tractor				12 mos.	50.00	600.00
					Sub-Total	$ 5,442.00
				Total Budgeted Amount A/C No. 600		$ 10,102.00

EXPENDITURE ACCOUNT NO. 700 Maintenance of Plant

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Repair of Equipment				$ 500.00
		Sub-Total -	A/C No. 704C	$ 500.00
Contracted Services Repair of Equipment				500.00
		Sub-Total -	A/C No. 720C	$ 500.00
		Total Budgeted Amount A/C No. 700		$1,000.00

EXPENDITURE ACCOUNT NO. 800 Fixed Charges

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Salaries (Fringe Benefits)				
Professional - $548,897.00				
	State Retirement Fund .0762			$ 41,826.00
	Social Security .004			24,151.00
	Workmen's Compensation .01			5,489.00
Salaries (Fringe Benefits)				
Non-Professional - $122,520.00				
	State Retirement Fund .0762			9,336.00
	Social Security .004			5,391.00
	Workmen's Compensation .01			1,225.00
Insurance for Vehicles				
	Truck			150.00
	Tractor			100.00
		Total Budgeted Amount A/C No. 800		$ 87,668.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Sites and Site Additions				
	Nature Center	25 acres	2,000.00	$ 50,000.00
	Total Budgeted Amount A/C No. 1210B			$ 50,000.00
Improvement to Sites				
	Kindergarten			
	Paving for play area			400.00
	Nature Center			
	Construction of pond			200.00
	Signs, fencing, framing, lumber			1,350.00
	Total Budgeted Amount A/C No. 1210C			$ 1,950.00
	Total Budgeted Amount PART II (continued)			$ 51,950.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item		Quantity	Salary Rental or Unit Cost	Budgeted Amount
New Buildings and Building Additions					
	Nature Center				
	New Buildings and Building Additions				
	24'x36' = 864 sq. ft.			14.00 sq. ft.	$ 12,096.00
	Materials = 60% =	$ 7,258.00			
	Labor = 40% =	4,838.00			
	General Construction = 9.65/ sq. ft. =	8,337.60			
	Materials = 5.79/sq. ft. =	5,002.56			
	Labor = 3.86/sq. ft. =	3,335.04			
	Electrical = 1.20/sq. ft. =	1,038.00			
	Materials = .60/sq. ft. =	519.00			
	Labor = .60/sq. ft. =	519.00			
	Heating & Air Conditioning = 2.25/sq. ft. =	1,944.00			
	Materials = 1.77/sq. ft. =	1,529.28			
	Labor = .48/sq. ft. =	414.72			
	Plumbing = .90/sq. ft. =	777.60			
	Materials = .45/sq. ft. =	388.80			
	Labor = .45/sq. ft. =	388.80			
		Total Budgeted Amount		A/C No.1220B	$ 12,096.00
			Total Budgeted Amount PART II		$ 64,046.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Equipment (1230B)				
Administration	5 drawer check file - business office	2	110.00	$ 220.00
	4 drawer legal file with lock - director's office	1	55.00	55.00
Evaluation	IBM card files	2	120.00	240.00
Dissemination	4 drawer legal file with lock	2	55.00	110.00
	RCA - portable T.V.	1	130.00	130.00
	Nikon camera	1	345.00	345.00
	Tape recorder	1	72.00	72.00
	16 mm movie camera	1	150.00	150.00
	16 mm movie projector	1	650.00	650.00
	Filmstrip slide projector	1	175.00	175.00
Learning Resource Center	Adding machine	1	200.00	200.00
			Total Budgeted Amount Sub-Total A/C 1230B	$ 2,347.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Equipment (1230C)				
Coordinator	desk	1	145.00	$ 145.00
	chair	1	83.00	83.00
	bookcases	4	50.00	200.00
	dictaphone - Albemarle	1	400.00	400.00
Secretary	desk	1	103.00	103.00
	chair	1	12.00	12.00
	file	1	53.00	53.00
	typewriter	1	486.00	486.00
Humanities - Albemarle				
	typewriter stands	3	25.50	77.00
	typewriters-reconditioned	3	300.00	900.00
	desk-specialist and aides	4	103.00	412.00
	chairs	4	12.00	48.00
	file	1	53.00	53.00
In-Service	all-purpose tables	3	46.00	138.00
	reconditioned typewriters	3	300.00	900.00
	typewriter stands	3	25.50	77.00
	copyholders	3	7.25	22.00
	files-4 drawer	3	53.00	159.00
	1/2 in. video tapes	20	40.00	800.00
	cameras	2	2,500.00	5,000.00
	zoom lens	2	1,000.00	2,000.00
	pan and tilt	2	450.00	900.00
	remote modules	2	340.00	680.00
	Total Budgeted Amount A/C No. 1230C (continued)			$ 13,648.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Equipment (1230C - continued)				
In-Service(continued)				
	monitors CNB 8/RC	1	340.00	$ 340.00
	monitors CNB 8/2R	2	595.00	1,190.00
	sync. gen	1	1,000.00	1,000.00
	switches/faders	1	1,750.00	1,750.00
	dist. amplifier	4	340.00	1,360.00
	audio mixer	1	100.00	100.00
	wave form monitor	1	1,150.00	1,150.00
	23" receiver	1	230.00	230.00
	adjustable dir. microphone	2	425.00	850.00
	lavalier microphone	1	60.00	60.00
	EV-200	1	3,450.00	3,450.00
	tripods and dollys	2	225.00	450.00
	1/2 hour tapes	10	45.00	450.00
	1 hour tapes	5	60.00	300.00
	space head assemblies	1	100.00	100.00
	pulse dist. amplifier	4	340.00	1,360.00
	R. F. modulator	1	850.00	850.00
	video patch panel	1	100.00	100.00
	sound servo AGC audio	1	125.00	125.00
	mounts for pan and tilt	10	38.00	380.00
	flush mount connectors	10	17.00	170.00
	50' control cables	2	80.00	160.00
	consoles A.V.I.	1	600.00	600.00
	ERL 82A tuner	1	275.00	275.00
	panel phones	1	62.00	62.00
	uniphones	5	32.00	160.00
	power pak	1	33.00	33.00
		Total Budgeted Amount A/C No. 1230C (continued)		$ 30,703.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Equipment (1230C - continued)				
Kindergarten - Clear Creek				
	A-frame climber	1	30.00	$ 30.00
	row rocker	1	38.00	38.00
	wheelbarrow	1	17.00	17.00
	record storage units	2	29.50	59.00
	filmstrip cabinet	1	33.00	33.00
	filmstrip projector	1	85.00	85.00
	screen	1	30.00	30.00
	filmstrip viewers	4	15.00	60.00
	record player	1	50.00	50.00
	tape recorder	1	90.00	90.00
	camera (Yasicha)	1	98.00	98.00
	flash attachment	1	28.00	28.00
	water fountain	1	100.00	100.00
	lavatory	1	100.00	100.00
	play storage unit	1	722.00	722.00
	benches	2	10.00	20.00
	G.E. clock	1	20.00	20.00
	cabinet in work room	1	400.00	400.00
	folding table	1	20.00	20.00
	crates for dramatic play	3	10.00	30.00
	audio monitoring system	1	350.00	350.00
Learning Resources Center				
	desks - aides	3	103.00	309.00
	chairs - aides	3	12.00	36.00
	typewriters - reconditioned	3	300.00	900.00
	Total Budgeted Amount A/C No. 1230C (continued)			$ 34,328.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Equipment (1230C - continued)				
Learning Resources Center (continued)				
	typewriter stands	3	25.50	$ 77.00
	files - 4 drawer	12	53.00	636.00
	paper cutters	3	22.00	66.00
	micro-film readers-Albemarle	8	185.00	1,480.00
	Independence	2	185.00	370.00
	book trucks-Albemarle	2	100.00	200.00
	Yasicha cameras	3	98.00	294.00
	flash attachments	3	28.35	85.00
	35MM Beseler-Topcorn auto 100	3	160.00	480.00
	super 8MM loop projector	9	122.00	1,098.00
	filmstrip viewers-Devonshire	3	15.00	45.00
	microphones-Devonshire	2	50.00	100.00
	record cabinets-Devonshire	2	30.00	60.00
	carrels-Devonshire	28	94.08	2,634.00
	card catalogue-15 drawer-Devonshire	1	244.00	244.00
	shelf list-12 drawer-Devonshire & Independence	2	197.50	395.00
Nature Center	farm tractor			3,500.00
	hot and cold frames-plants			400.00
	sprinkler system			500.00
	nursery plot-sprinkler			250.00
Team Teaching - Devonshire				
	paper cutters	2	22.00	44.00
	teacher desks - aides	6	102.00	612.00
	teacher chairs - aides	6	12.00	72.00
	files - 4 drawer	6	53.00	318.00
	Total Budgeted Amount A/C No. 1230C (continued)			$ 48,288.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Equipment (1230C - continued)				
Team Teaching - Devonshire(continued)				
	typewriter-Primary-Remington Rand	1	253.00	$ 253.00
	typewriter-manual-Royal	1	167.00	167.00
	copy holders	2	7.50	15.00
	typewriter stands	2	26.00	52.00
	xylophone-Sonor	1	168.00	168.00
	metallophone-Sonor	1	233.00	233.00
	rhythm instruments-sets	6	125.00	750.00
	electronic pianos	6	500.00	3,000.00
	master control	1	750.00	750.00
	teacher desk	1	102.00	102.00
	teacher chair	1	12.00	12.00
Team Teaching - Non-Graded Math-Science - Albemarle				
	typewriters-reconditioned	2	300.00	600.00
	desks-aides	2	103.00	206.00
	chairs-aides	2	12.00	24.00
	typewriter stands	2	25.50	51.00
Individually Prescribed Instruction - Clear Creek				
	special shelving			2,000.00
	tape recorders	8	85.00	680.00
	record players	8	50.00	400.00
			Total Budgeted Amount A/C No. 1230-C (continued)	$ 57,751.00

EXPENDITURE ACCOUNT NO. 1200 Capital Outlay

Expense Class	Name & Title, Purpose, or Item	Quantity	Salary Rental or Unit Cost	Budgeted Amount
Equipment (1230C - continued)				
Instructional Data Processing				
	Tape recorder	2	140.00	$ 280.00
	Card files - 20 drawer	2	216.00	432.00
	Storage cabinets	2	59.00	117.00
	Disk cartridges	3	90.00	270.00
	Sub-Total A/C No. 1230C			$58,850.00
	Total Budgeted Amount A/C No. 1230			$61,197.00

Estimated Expenditure Report
of
Federal Funds
as of
March 31, 1968

OE 4351 (REV. 12/66)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

BUDGET BUREAU NO. 51-R570.1
APPROVAL EXPIRES 6/30/68

PROPOSED BUDGET SUMMARY/EXPENDITURE REPORT OF FEDERAL FUNDS

Title III, Elementary and Secondary Education Act of 1965 - Supplementary Centers and Services Program

(NOTE: Please read the attached instructions before completing this form)

NAME AND ADDRESS OF AGENCY: Charlotte-Mecklenburg School System

PROJECT NUMBER: 3720

GRANT NUMBER: OEG-3-7-703720-4882

STATE: North Carolina

PART I – EXPENDITURES *(other than construction)*

(Check One) ☐ PROPOSED BUDGET SUMMARY (ATTACH DETAIL SCHEDULES) ☒ ESTIMATED EXPENDITURE REPORT ☐ FINAL EXPENDITURE REPORT

BUDGET PERIOD (MONTH, DAY, & YEAR) BEG: July 1, 1967 END: March 31, 1968

	EXPENDITURE ACCOUNTS		EXPENSE CLASSIFICATION								
	FUNCTIONAL CLASSIFICATION	ACC'T NO.	SALARIES		CONTRACTED SERVICES	MATERIALS AND SUPPLIES	TRAVEL	EQUIPMENT	OTHER EXPENSES	TOTAL EXPENDITURES	NEGOTIATED BUDGET
			PROFESSIONAL	NON-PROFESSIONAL							
	1	2	3	4	5	6	7	8	9	10	11
1	ADMINISTRATION	100	$ 21,898.07	$ 7,390.40	$	$ 769.26	$ 1,112.40	$	$	$ 31,170.13	$ 52,731.00
2	INSTRUCTION	200	113,515.48	37,350.61		21,857.87	2,043.26		9,986.36	184,753.58	333,458.00
3	ATTENDANCE SERVICES	300									
4	HEALTH SERVICES	400									
5	PUPIL TRANSPORTATION SERVICES	500									
6	OPERATION OF PLANT	600				625.05				625.05	1,265.00
7	MAINTENANCE OF PLANT	700							404.73	404.73	550.00
8	FIXED CHARGES	800							23,456.12	23,456.12	42,727.00
9	FOOD SERVICES	900									
10	STUDENT-BODY ACTIVITIES	1000									
11	COMMUNITY SERVICES	1100									
12	REMODELING (IF COSTS TOTAL MORE THAN $2000 ENTER IN PART II)	1220c							465.37	465.37	1,200.00
13	CAPITAL OUTLAY (EQUIPMENT ONLY)	1230						95,526.33		95,526.33	103,331.00
14	TOTAL →		$ 135,413.55	$ 44,741.01	$	$ 23,252.18	$ 3,155.66	$ 95,526.33	$ 34,312.58	$ 336,401.31	$
15	NEGOTIATED BUDGET →		$ 272,984.00	$ 55,690.00	$ 500.00	$ 40,530.00	$ 11,600.00	$ 103,331.00	$ 50,627.00	xxxxxxxxxxxxx	$ 535,262.00

PART II – CONSTRUCTION EXPENDITURES

(Check One)
☐ PROPOSED BUDGET SUMMARY
☒ ESTIMATED EXPENDITURE REPORT
☐ FINAL EXPENDITURE REPORT

BUDGET PERIOD *(Month, Day, & Year)*
BEGINNING: July 1, 1967
ENDING: June 30, 1968

		EXPENDITURE ACCOUNTS	ACC'T NUMBER	AMOUNT	NEGOTIATED BUDGET
		1	2	3	4
1		SITES			
	A	PROFESSIONAL SERVICES	1210a	$	$
	B	IMPROVEMENT TO SITES	1210c	465.37	1,200.00
2		BUILDINGS			
	A	PROFESSIONAL SERVICES	1220a		
	B	NEW BUILDINGS AND BUILDING ADDITIONS	1220b		
	C	REMODELING (IF $2,000 OR LESS ENTER IN PART I)	1220c		
3		ADMINISTRATIVE EXPENSES *(Specify below)*	1220		
	A				
	B				
4		LEASING OF FACILITIES			
5		TOTAL →		$ 465.37	$ 1,200.00

PART III – SUMMARY - AUTHORIZATIONS, EXPENDITURES, AND BALANCES OF TITLE III ESEA FUNDS

BUDGET PERIOD *(Month, Day, and Year)*
BEGINNING: July 1, 1967 ENDING: June 30, 1968

☒ ESTIMATED EXPENDITURE REPORT to March 31, 1968
☐ FINAL EXPENDITURE REPORT

		ITEMS		PART I - EXPENDITURES OTHER THAN CONSTRUCTION	PART II CONSTRUCTION EXPENDITURES	TOTAL
		1		2	3	4
1		AMOUNT AUTHORIZED FOR EXPENDITURE FOR BUDGET PERIOD SHOWN ABOVE →		534,062.00	1,200.00	535,262.00
	A	UNEXPENDED FUNDS FROM GRANT AWARDED FOR PRIOR BUDGET PERIOD	$			
	B	APPROVED GRANT AWARD FOR BUDGET PERIOD SHOWN ABOVE	$			
	C	TOTAL FUNDS AUTHORIZED FOR BUDGET PERIOD ABOVE (SAME AS ITEM 1, COL. 4)	$			
2		EXPENDITURES DURING BUDGET PERIOD SHOWN ABOVE →		335,935.94	465.37	336,401.31
3		UNEXPENDED BALANCE OF FUNDS AUTHORIZED FOR EXPENDITURE DURING BUDGET PERIOD SHOWN ABOVE (ITEM 1 MINUS ITEM 2) →		198,126.06	734.63	198,860.69

PART IV – CUMULATIVE TOTALS - GRANT AWARDS AND CASH RECEIVED SINCE INCEPTION OF PROJECT

	ITEMS	CUMULATIVE TOTAL TO DATE
1	GRANT AWARDS	535,262.00
2	CASH RECEIVED	267,789.00

THIS FISCAL REPORT IS CORRECT AND THE EXPENDITURES INCLUDED HEREIN ARE DEEMED PROPERLY CHARGEABLE TO THE GRANT AWARD.

SIGNATURE OF PROJECT FISCAL OFFICER Everett P. Cameron DATE 4/15/68
SIGNATURE OF PROJECT DIRECTOR Marjorie B. Brodt DATE 4/15/68

FOR OFFICE OF EDUCATION USE ONLY

ACCOUNTING DATA

TRANS. CODE	DOC. REF.	OBLIGATION NUMBER	FY	UNIFORM ACCT'NG NO.	OBJECT CLASS	PROGRAM CODES EXP. CLASS	PROGRAM CODES BAL. PAY	PROGRAM CODES	SEC. REPT.	VOUCHER NUMBER	SCHEDULE NUMBER
1	2	3	4	5	6	7	8	9	10	11	12

GEO. CODE	GOVT./ NON-GOVT.	VENDOR NUMBER	AMOUNT	CR. SYM.	GENERAL LEDGER DEBIT	GENERAL LEDGER CREDIT	APPROPRIATION SYMBOL	
13	14	15	16	17	18	19	20	21

GPO : 1967 O—248-070

EXPENDITURE ACCOUNT NO. 100 - Administration

Expense Class	Name and Title, Purpose, or Item	Project Time		Quantity	Expended Amount March 31, 1968
		Full	Part		
Salaries					
Professional					
	Director	x			
	Assistant Director	x			
	Evaluation Director		x		
	Data Research Analyst	x			
				Subtotal	$ 21,898.07
Non-Professional					
	Secretary	x			
	Secretary	x			
	Steno-Typist	x			
	Accountant		x		
				Subtotal	$ 7,390.40
Travel				Subtotal	$ 1,112.40
Supplies				Subtotal	$ 769.26
				Total Expended Amount Account No. 100	$ 31,170.13

EXPENDITURE ACCOUNT NO. 200 - Instruction

Expense Class	Name and Title, Purpose, or Item	Project Time		Quantity	Expended Amount March 31, 1968
		Full	Part		
Salaries Professional					
	Coordinators	x			$ 35. 820. 29
	Teachers	x			65, 398. 13
	A-V Specialist	x			12, 297. 06
			Subtotal		$113, 515. 48
Non-Professional					
	Secretaries	x			9, 114. 81
	Teacher Aides & A. V. Assistants	x			28, 235. 80
			Subtotal		$ 37, 350. 61
Materials and Supplies					
	School Library Books				6, 586. 52
	A-V Materials				9, 621. 69
	Teaching Supplies				4, 220. 96
	Professional Books, Office Supplies				1, 428. 70
			Subtotal		$ 21, 857. 87
Travel					2, 043. 26
			Subtotal		$ 2, 043. 26
Consultants					5, 082. 77
Evaluation					4, 903. 59
			Subtotal		$ 9, 986. 36
				Total Expended Amount Account No. 200	$184, 753. 58

EXPENDITURE ACCOUNT NO. 600 - Operation of Plant

Expense Class	Name and Title, Purpose, or Item	Project Time		Quantity	Expended Amount March 31, 1968
		Full	Part		
Telephone					$ 300.00
Supplies	Custodial-Nature Center				325.05
	Total Expended Amount Account No. 600				$ 625.05

EXPENDITURE ACCOUNT NO. 700 - Maintenance of Plant

Expense Class	Name and Title, Purpose, or Item	Project Time		Quantity	Expended Amount March 31, 1968
		Full	Part		
Maintenance Supplies	Nature Center				$404.73
	Total Expended Amount Account No. 700				$404.73

EXPENDITURE ACCOUNT NO. 800 - Fixed Charges

Expense Class	Name and Title, Purpose, or Item		Project Time		Quantity	Expended Amount March 31, 1968
			Full	Part		
Salaries						
Professional	State Retirement	.0762				$10,318.51
	Social Security	.044				5,958.20
	Employee Insurance	.01				1,354.14
Non-Professional	State Retirement	.0762				3,409.26
	Social Security	.044				1,968.60
	Employee Insurance	.01				447.41
					Total Expended Amount Account No. 800	$23,456.12

EXPENDITURE ACCOUNT NO. 1200 - Capital Outlay

Description of Item	Quantity	Unit Rental Cost per month	Project Period Rental Cost	Unit Purchase Cost	Expended Amount as of March 31, 1968
Other Expenses					
Improvement to site					$ 465.37
				Subtotal	$ 465.37
Equipment					
Administration					$ 4,140.60
Instructional					85,791.54
Remodeling					5,594.19
				Subtotal	$95,526.33
		Total Amount Expended Account No. 1200			$94,991.70